THE ARCHITECTS' JOURNAL

standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

NEWS and COMMENT

Astragal's Notes and Topics
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Information Sheets
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CURRENT BUILDING

Major Buildings described:
Details of Planning, Construction, Finishes and Costs
Buildings in the News
Building Costs Analysed

Architectural Appointments Wanted and Vacant

No. 3442] [Vol. 133

THE ARCHITECTURAL PRESS

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Registered as a Newspaper.

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their addresses and telephone numbers. The glossary is published in two parts—A to Ii one week, Il to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: J. H. Holden, College of Art, Cavendish Street,	Manchester 15
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5533
ABT	Association of Building Technicians. 156, Waterloo Road, S.E.1.	Waterloo 5427/8
ACGB	Arts Council of Great Britain. 4, St. James's Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 5861
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BASA	British Architectural Students Association. Building Centre, 26 Store Street, W.C.1.	
BC	Building Centre, 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portland Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BE	Building Exhibition. 11, Manchester Square, W.1.	Hunter 1951
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
CABAS	City and Borough Architects Society. C/o S. A. G. Cook, A.R.I.B.A., Borough Architect and Director of Housing, Town Hall, High Holborn, W.C.1.	Holborn 3411
CAS	County Architects' Society. C/o J. Hurst, A.R.I.B.A., County Hall, Dorchester.	
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Belgravia 6661
CDA	Copper Development Association. 55 South Audley Street, W.1.	Grosvenor 8811
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors, 14, Bryanston Street, W.1.	Welbeck 1781
FBBDO	Fibre Building Board Development Organization Ltd. (Fidor), Stafford House, Norfolk Street, W.C.2.	Covent Garden 3008
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 33, John Street, W.C.1. Tel.: Chancery 7583 (6 lines)	
FPC	Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GPDA	Gypsum Plasterboard Development Association. 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Belgravia 4321
GG	Georgian Group. 2, Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8265
IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square.	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 37, Soho Square, W.1.	Gerrard 5056

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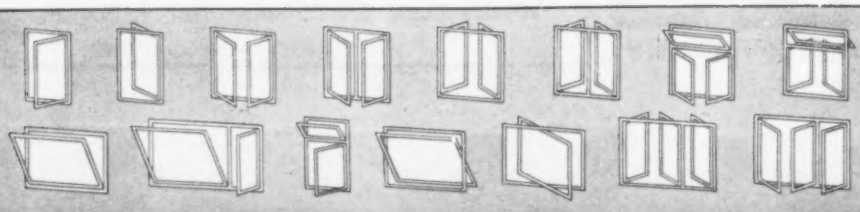
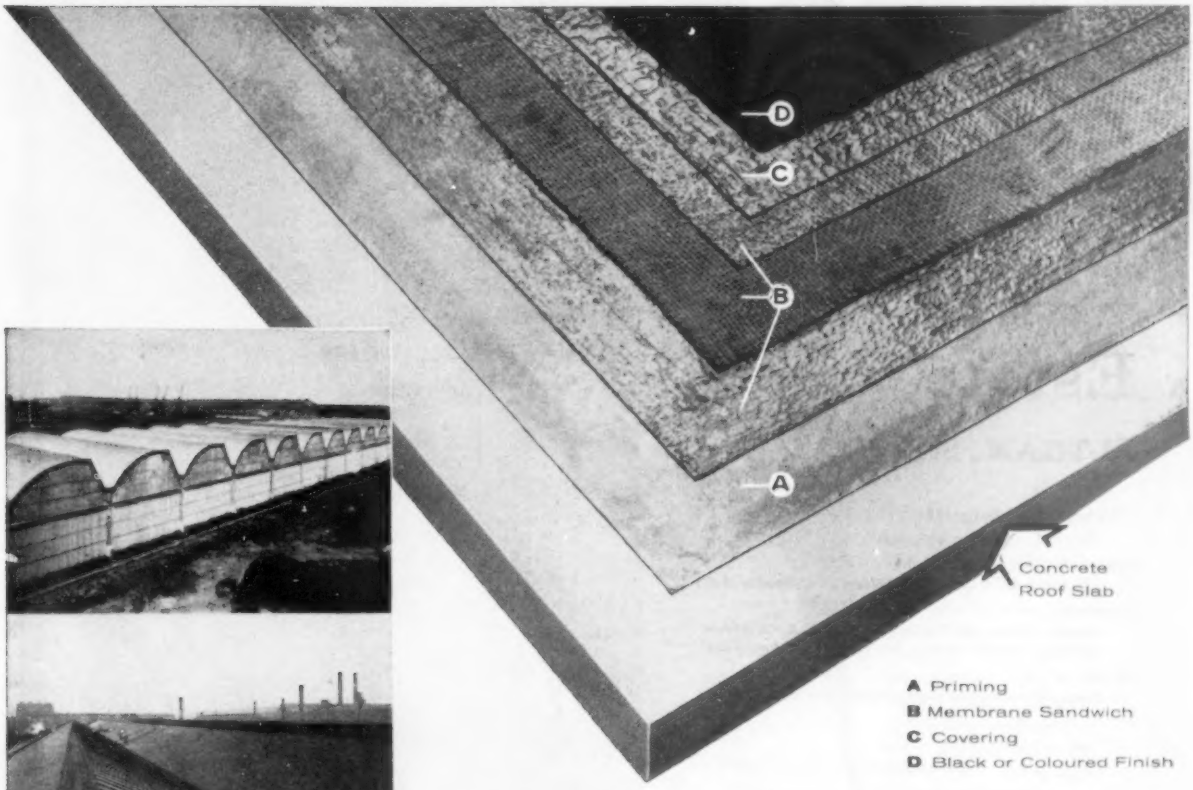
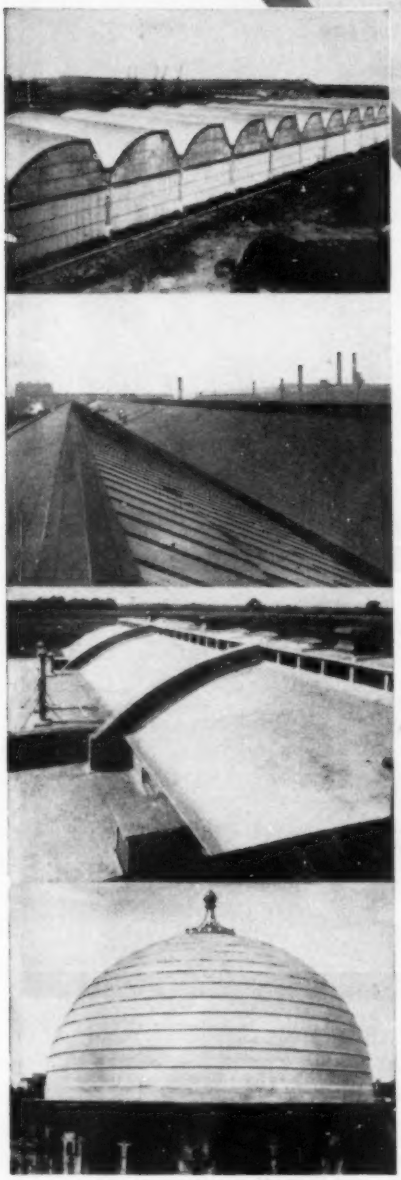




A Priming
B Membrane Sandwich
C Covering
D Black or Coloured Finish



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H-W.188

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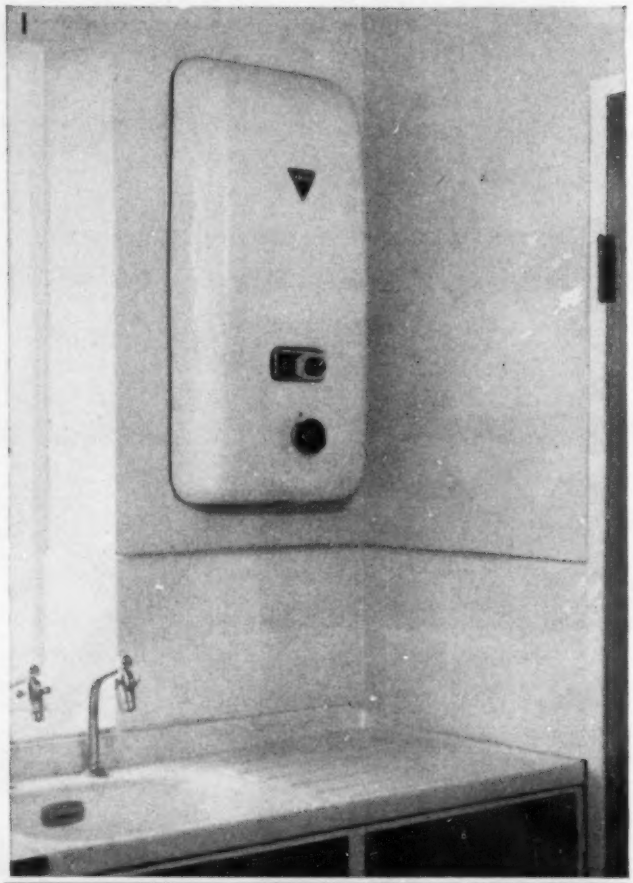
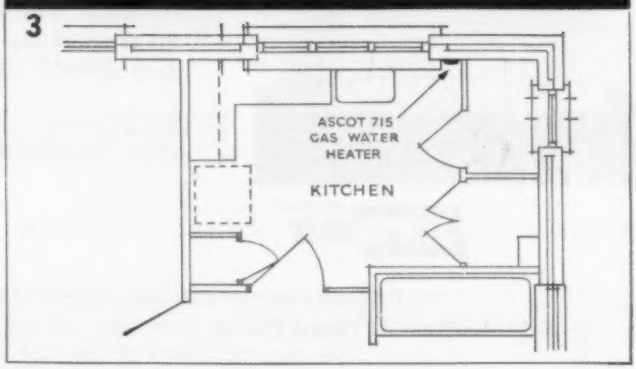
2. *Front elevation of a two-storey flat unit at Eltham.*
3. *Plan view of a first-floor flat kitchen showing position of Ascot 715.*





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Extract from a report prepared by:
Mr. G. C. Wilson for R. H. Harry Stanger, Testing Consultants, The Laboratories, Summerfield House, Barnet Lane, Elstree, Herts.
5th October 1960
Report of permeability test carried out with Febproof Integral Liquid Waterproofing Compound in a Mortar Mix.

Mix:—	Febproof Treated	Control Untreated
Sand, Parts by Volume	3	3
Portland Cement by Volume	1	1
"Febproof," Pints per cwt. Cement	1	Nil
Water/Cement Ratio	0·47	0·53
Slump Inches	1½"	1½"

PERMEABILITY TEST RESULT ON MORTAR TREATED WITH FEBPROOF

Water Pressure		Water Pressure Held For	Amount of Water Percolation
Feet Head	Lbs. per sq. in.		
46	20	1 HOUR	NIL
69	30	1 "	NIL
92	40	1 "	NIL
115	50	1 "	NIL
172	75	1 "	NIL
230	100	1 "	NIL
287	125	1 "	NIL
345	150	1 "	NIL

The thickness of the 1-3 cement, sand mortar slabs, was 2", and age at date of test 28 days. Water percolated through all untreated control specimens. **No** water percolated through Febproof treated specimens. SEE TEST RESULT ABOVE.
Signed by G. C. Wilson for R. H. Harry Stanger.

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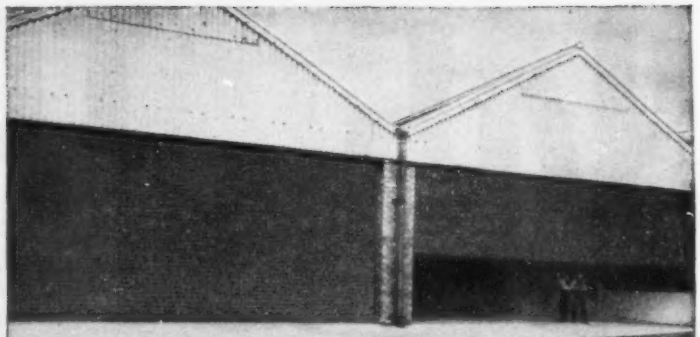
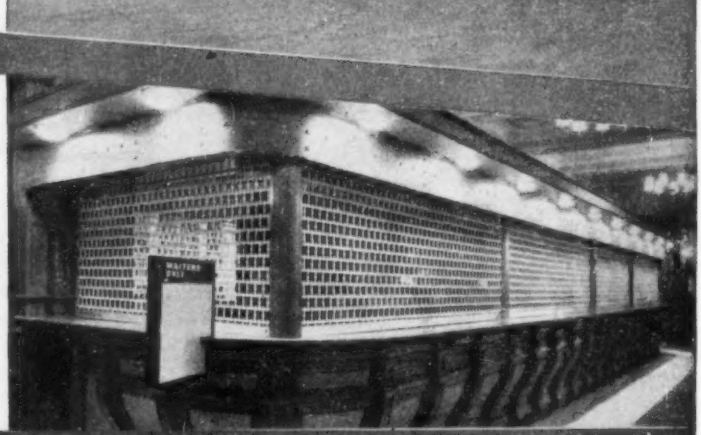
roller shutters



sliding shutter doors

rolling grilles



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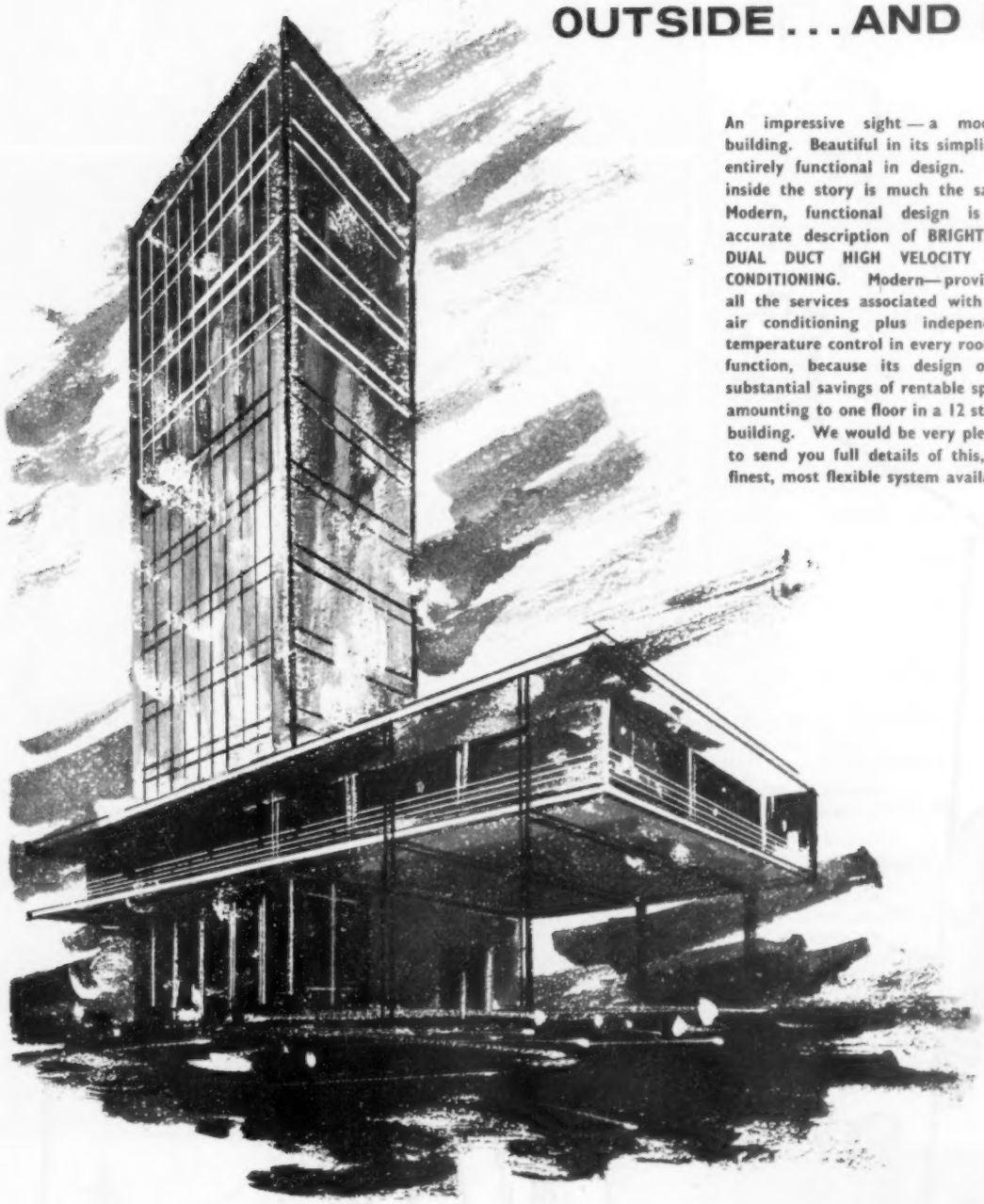

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BP135

This is the tale of Cedric Potter

Whose first job was to keep homes hotter.
He thought he had the problem taped,
But every time the warmth escaped.
"Alas!" he cried, "what dire confusion!"
And sat in gloomy disillusion.
Through dream-filled nights of desperation
A voice said, "Foil for insulation.
Get Fisher's on your problem, son,
'Phone Wembley six-o-double-one!"
So up at once to act he vaulted—
And now he holds a rank exalted.

Leading insulation specialists are turning increasingly to Aluminium Foil.

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★ ALUMINIUM FOIL layers separated by air spaces.
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7 DELIGHTFUL
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Shanks

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Consulting Structural Engineers: Wheeler & Jupp, M/M.I.C.E., M/M.I.Struct.E.
Consulting Foundation Engineers:
Hurst, Peirce & Malcolm, M/M.I.C.E., M/M.I.Struct.E., M/M.Cons.E.
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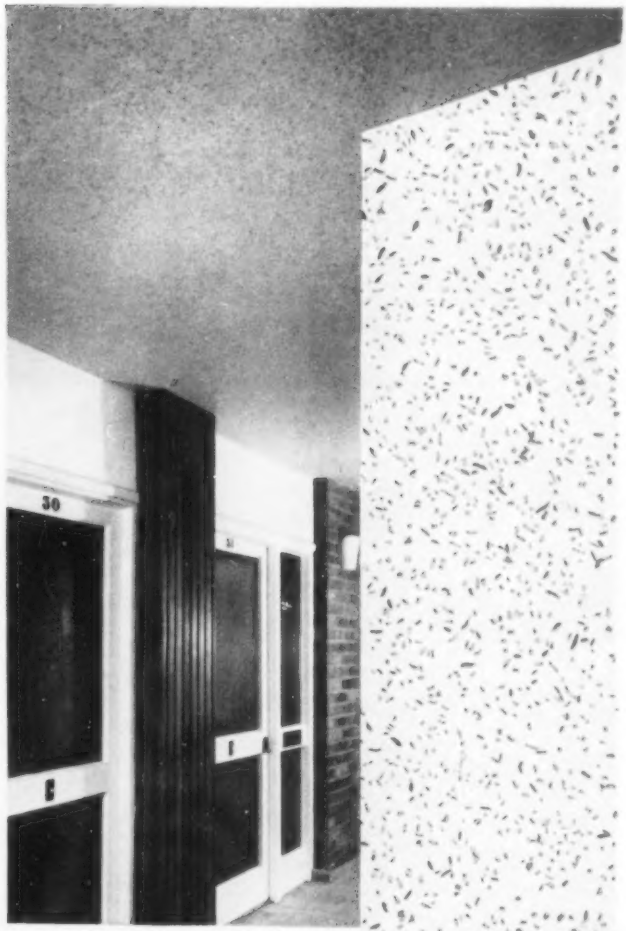

Lowood Court, Dulwich, where Tretol Multicolour was used on staircases and lift areas. Part of Wates Dulwich redevelopment project. Designed by Austin, Vernon & Partners.

Luxury Finish at Low Cost

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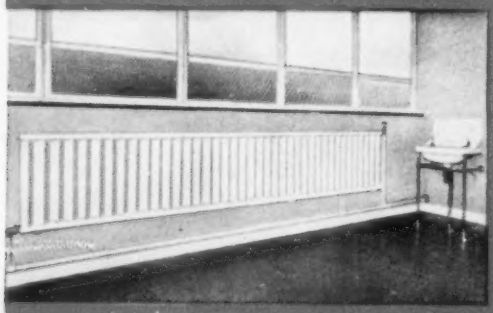
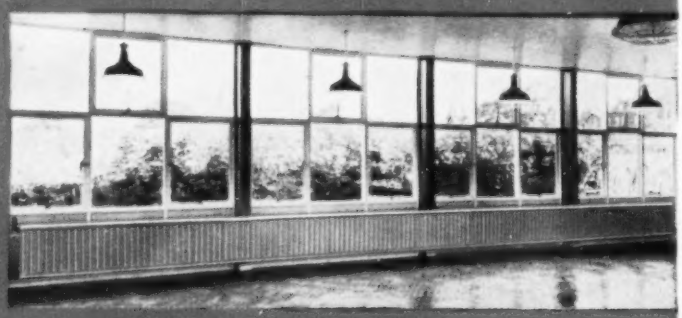

Ideal Neoline radiators harmonise in every setting

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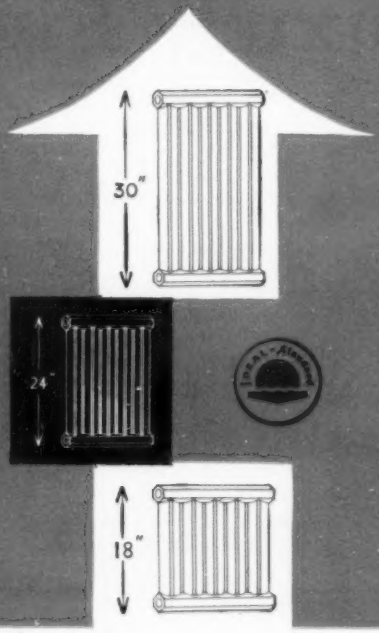

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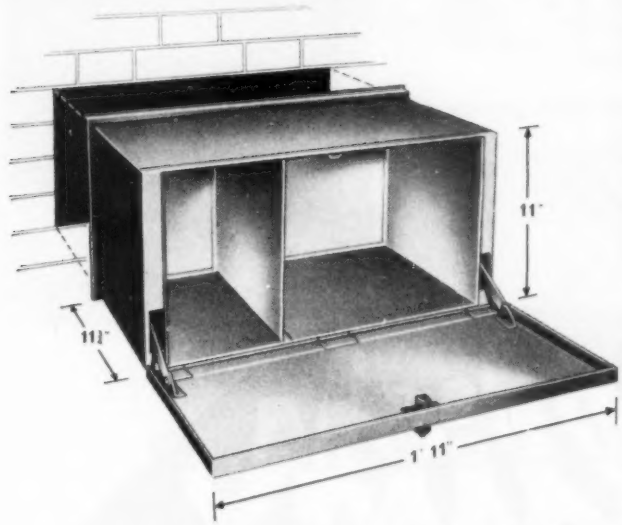

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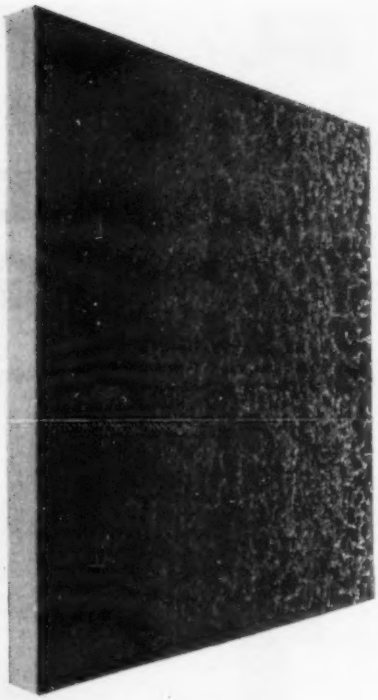

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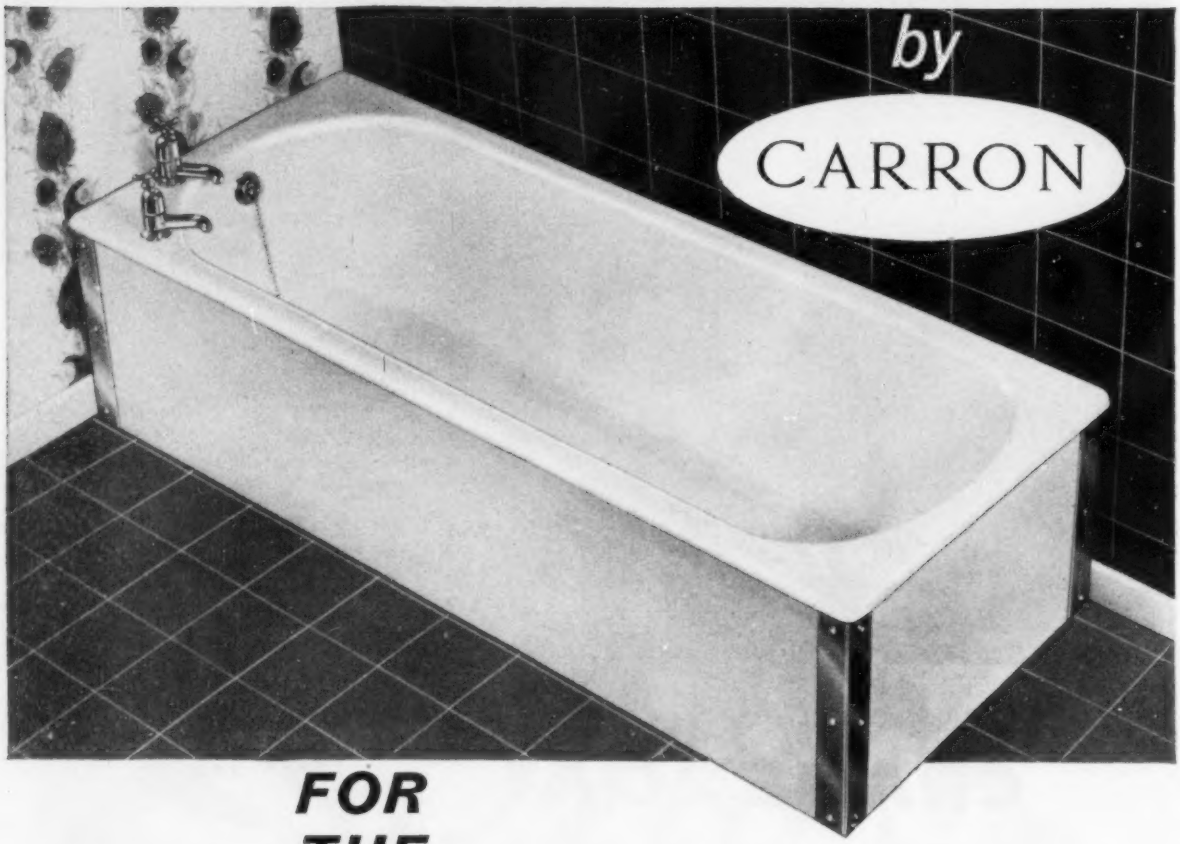

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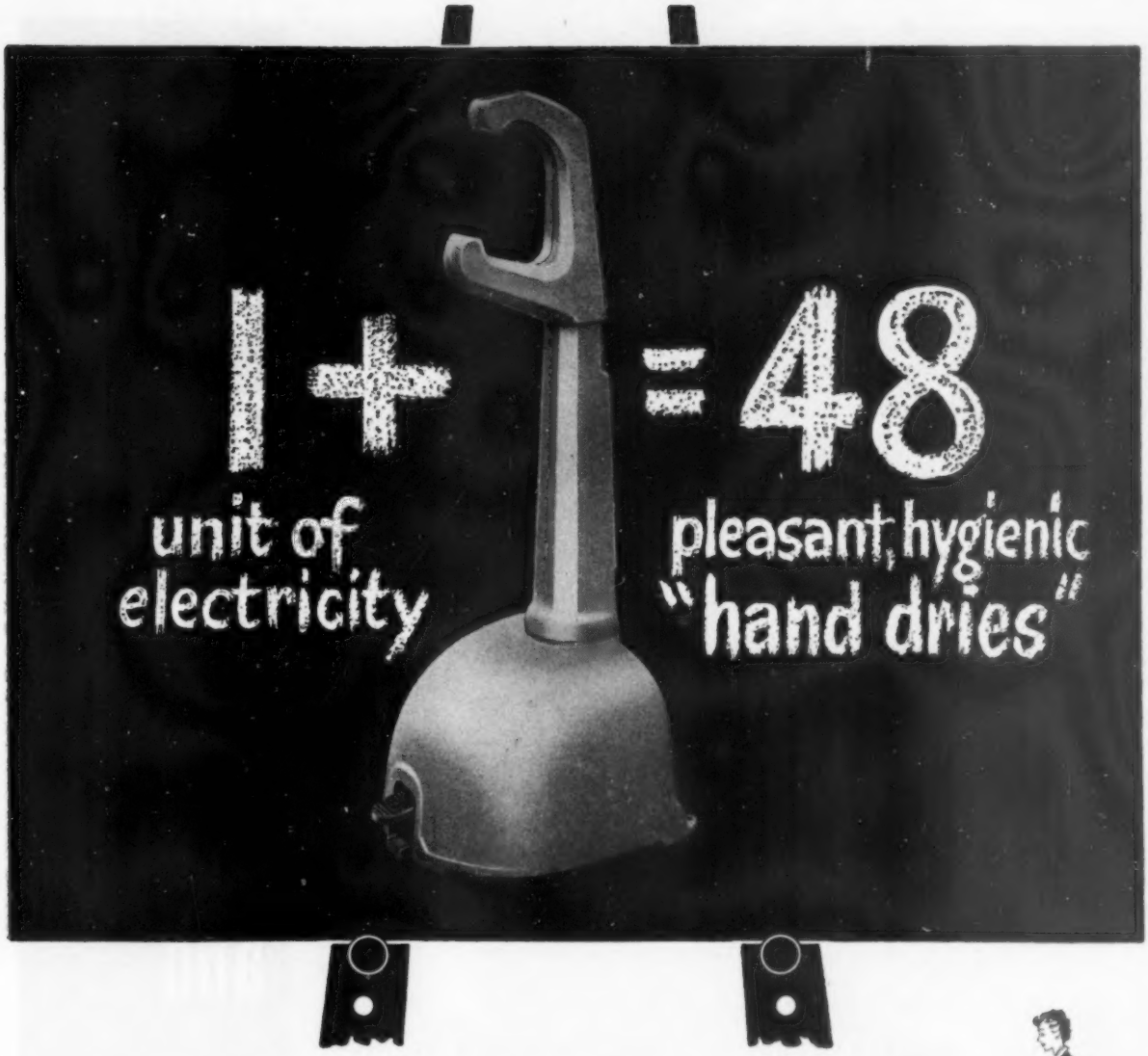

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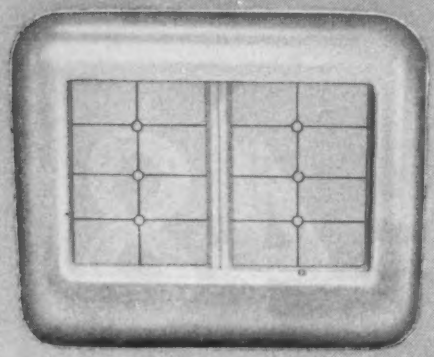

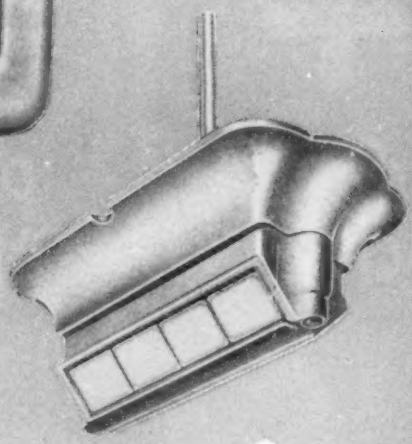

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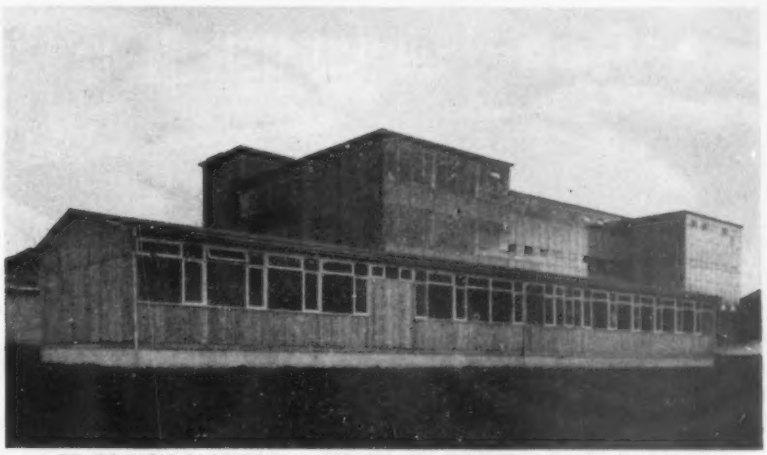

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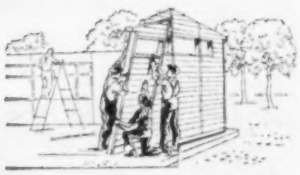

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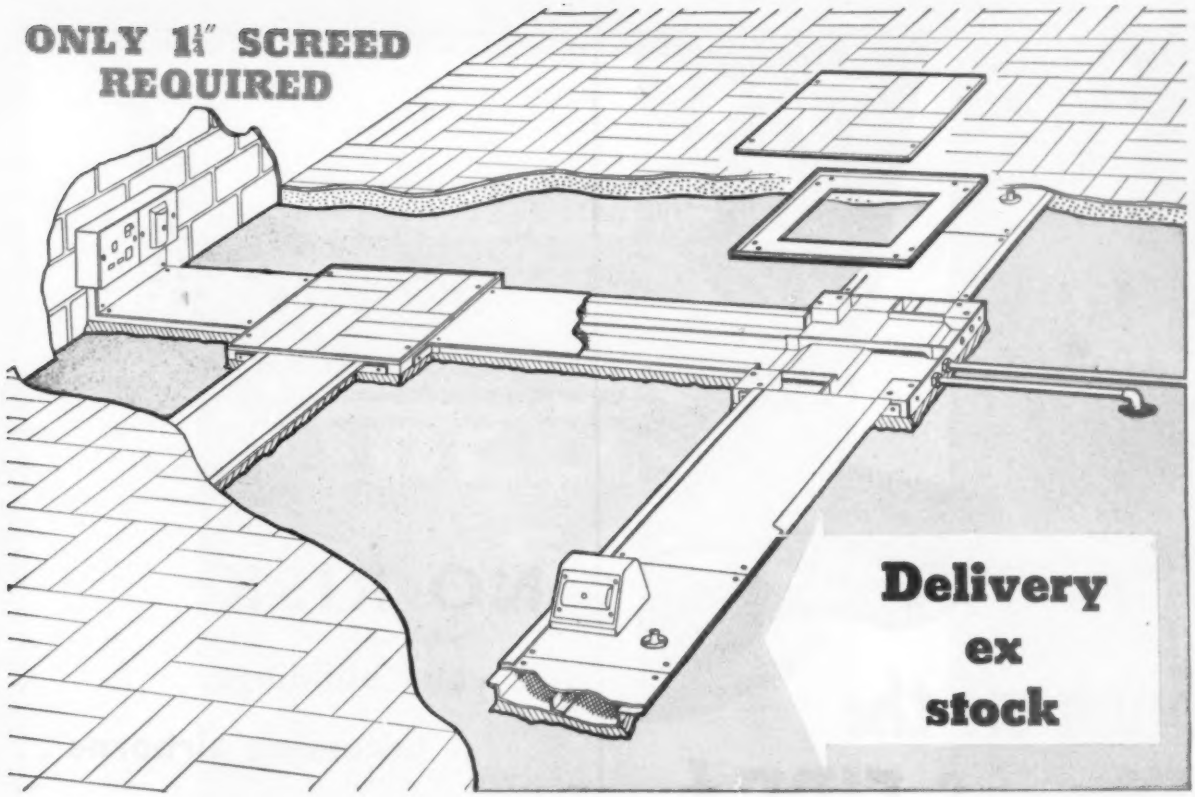

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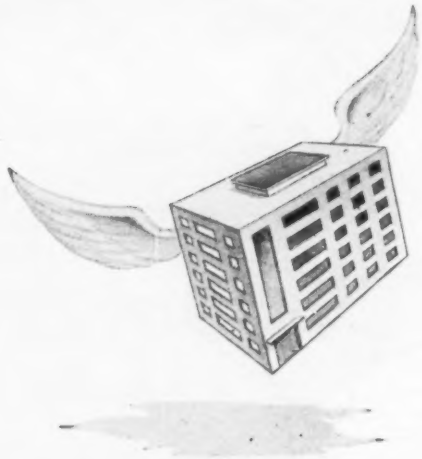

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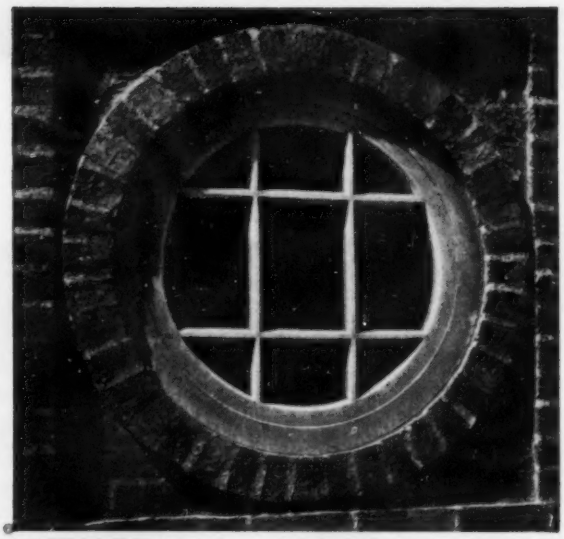

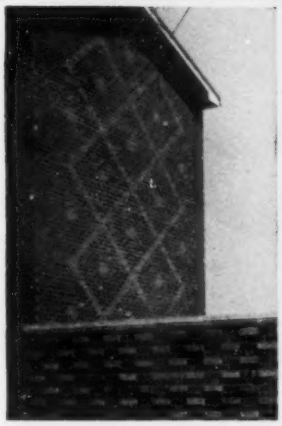

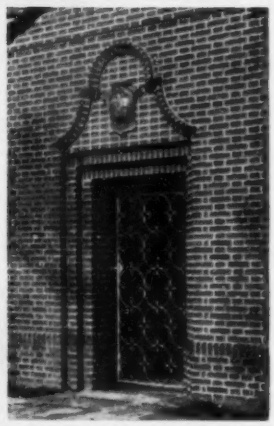

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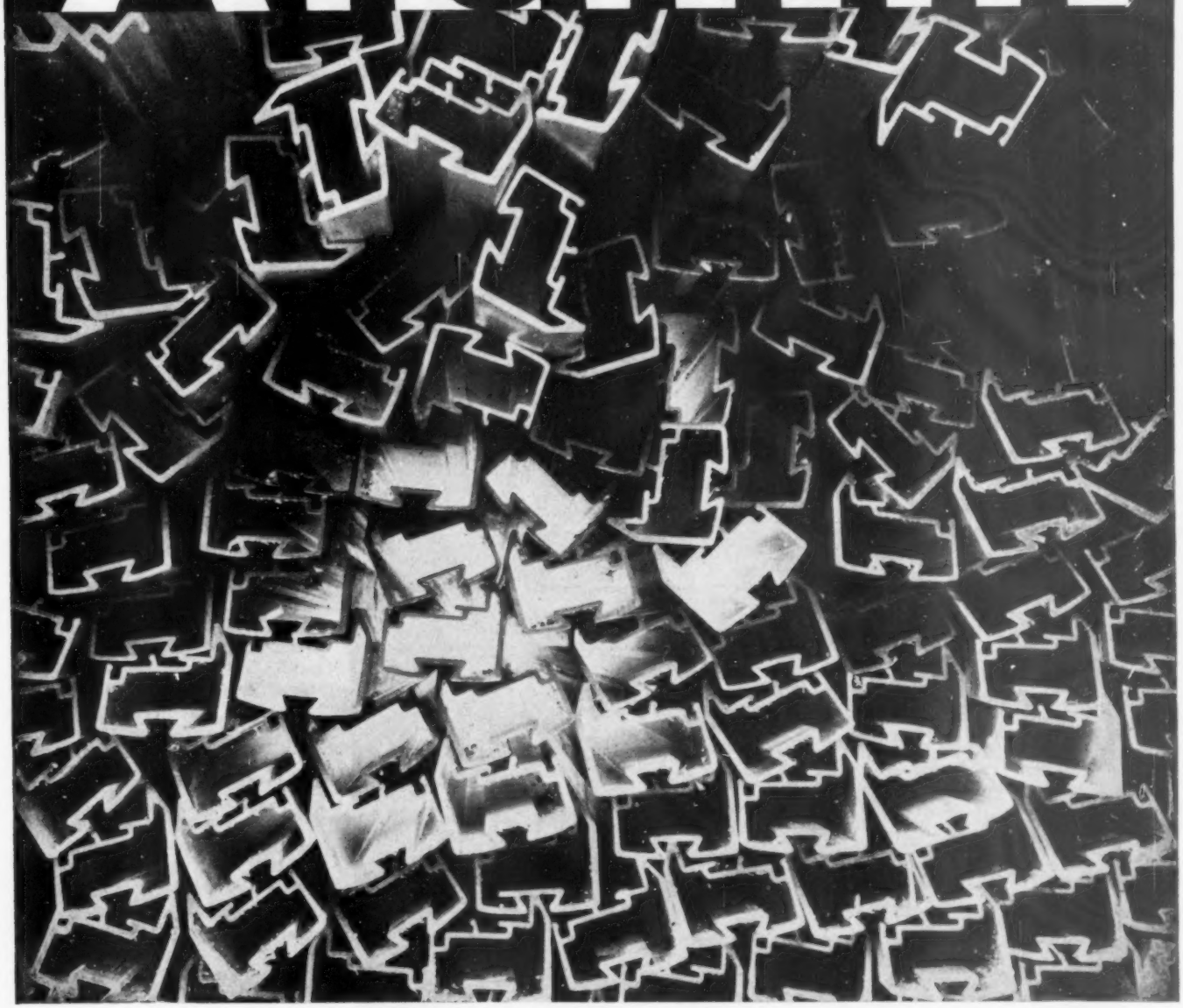

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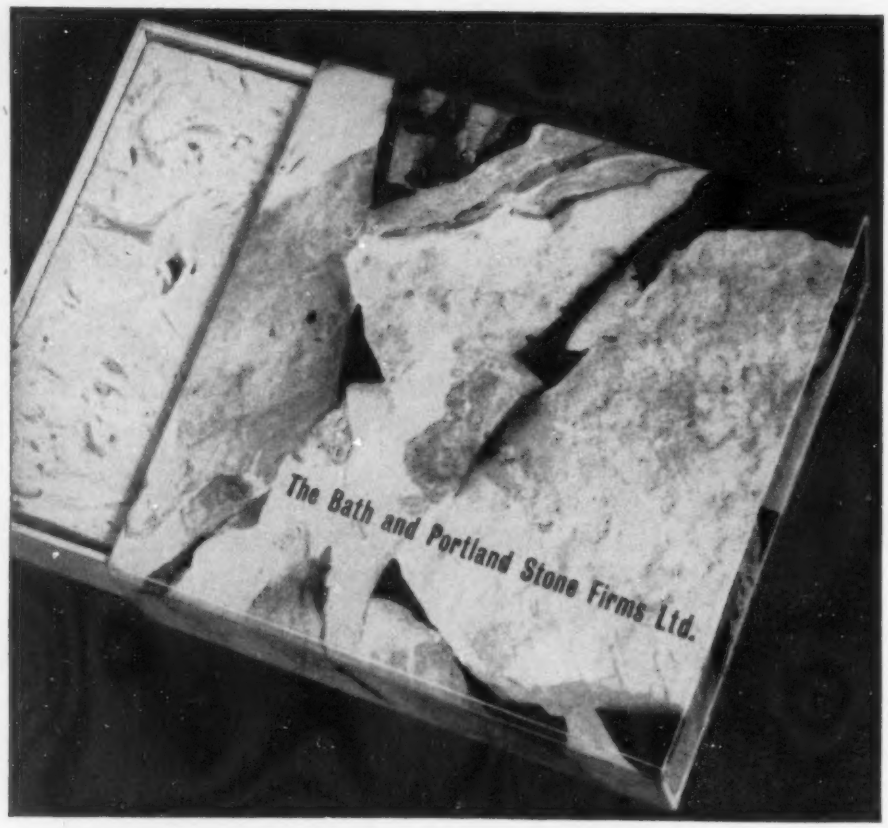

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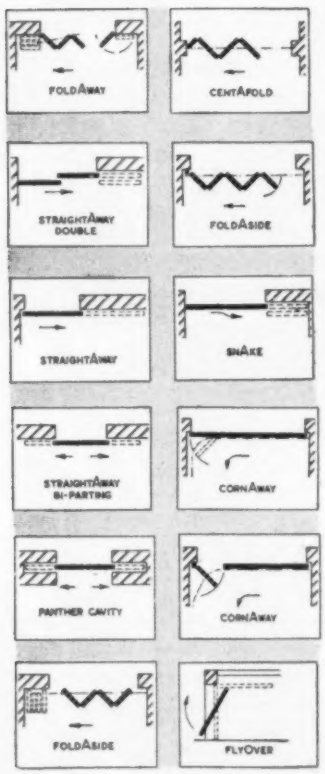

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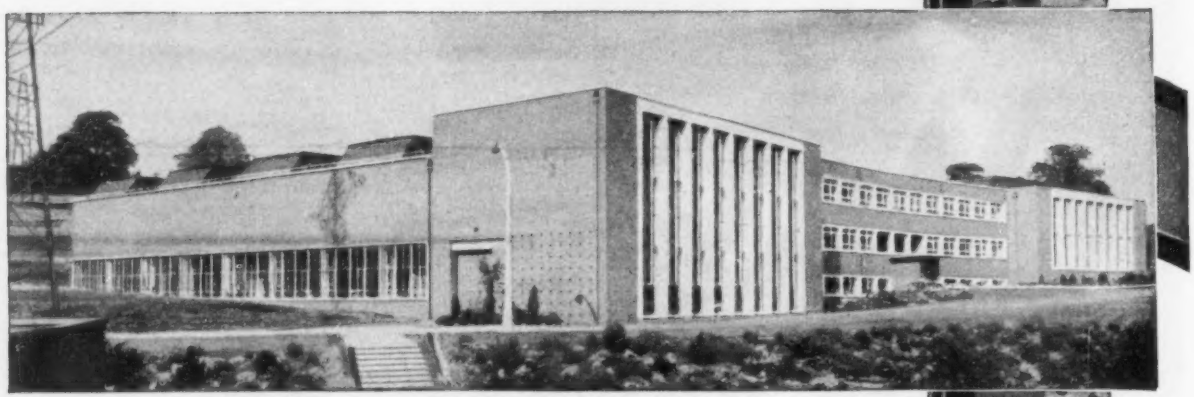

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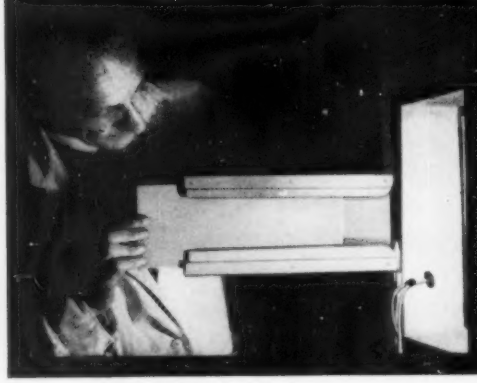

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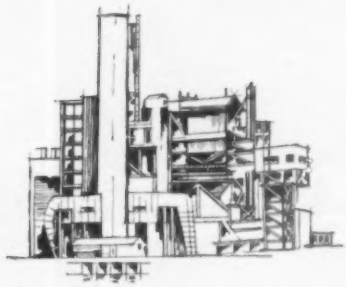
Occupied by the Douglas family for over 3 centuries it is situated on a high, wind-swept promontory opposite Bass Rock on the East Lothian coast. One of the grandest and most rewarding of all Scottish castles, its walls, 50 feet high and 12 feet thick, withstood siege and shot by James IV and V in the 15th and 16th centuries.



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An old castle or a modern steel structure sooner or later reveals the constant wear and tear of the elements—erosion, corrosion, in the salt laden air of the coast or the sulphurous atmosphere of the industrial city.

You may not possess a castle in the air but if the reality of corrosion in industrial plant is *your* problem write to us for details of how DRYGALV Cathodic Protection and DRYNAMELS Maintenance Paints can considerably help your maintenance programme.

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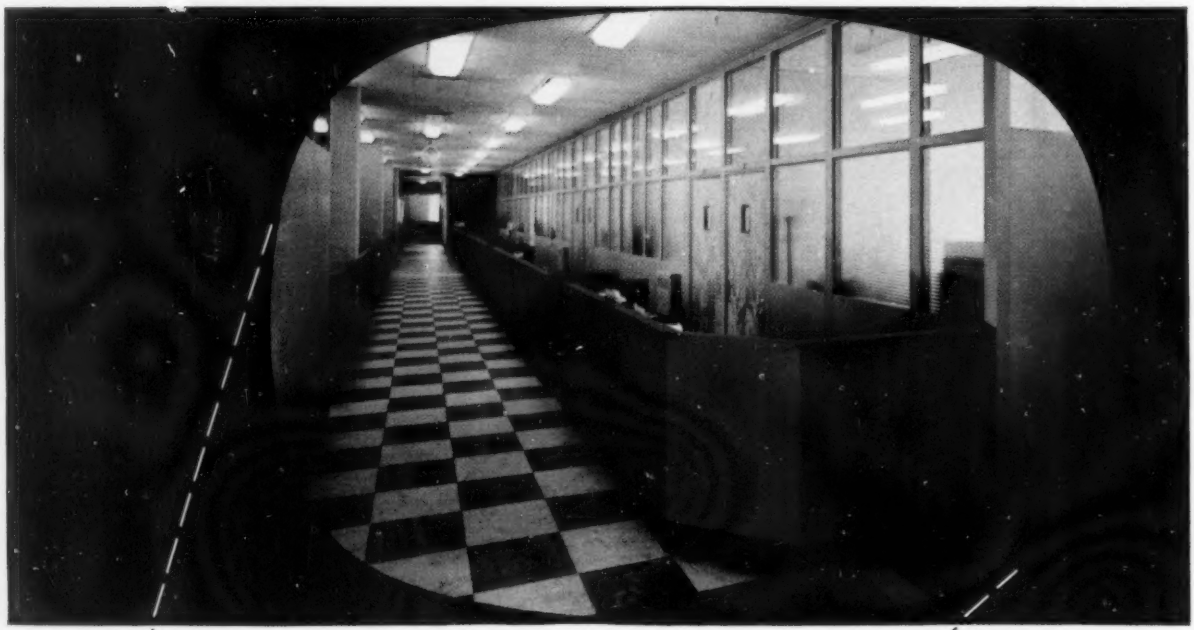

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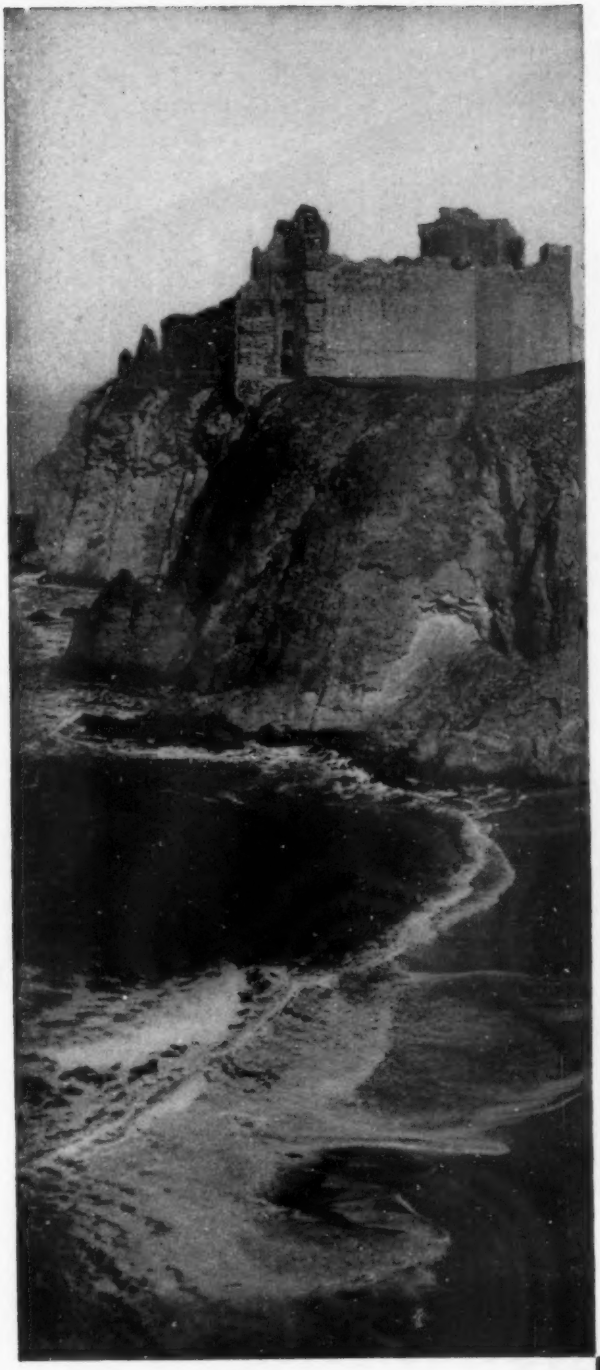

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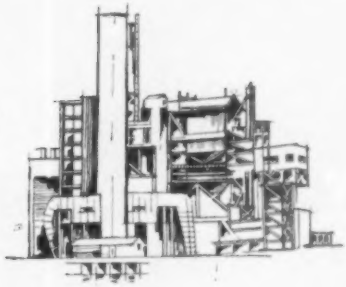

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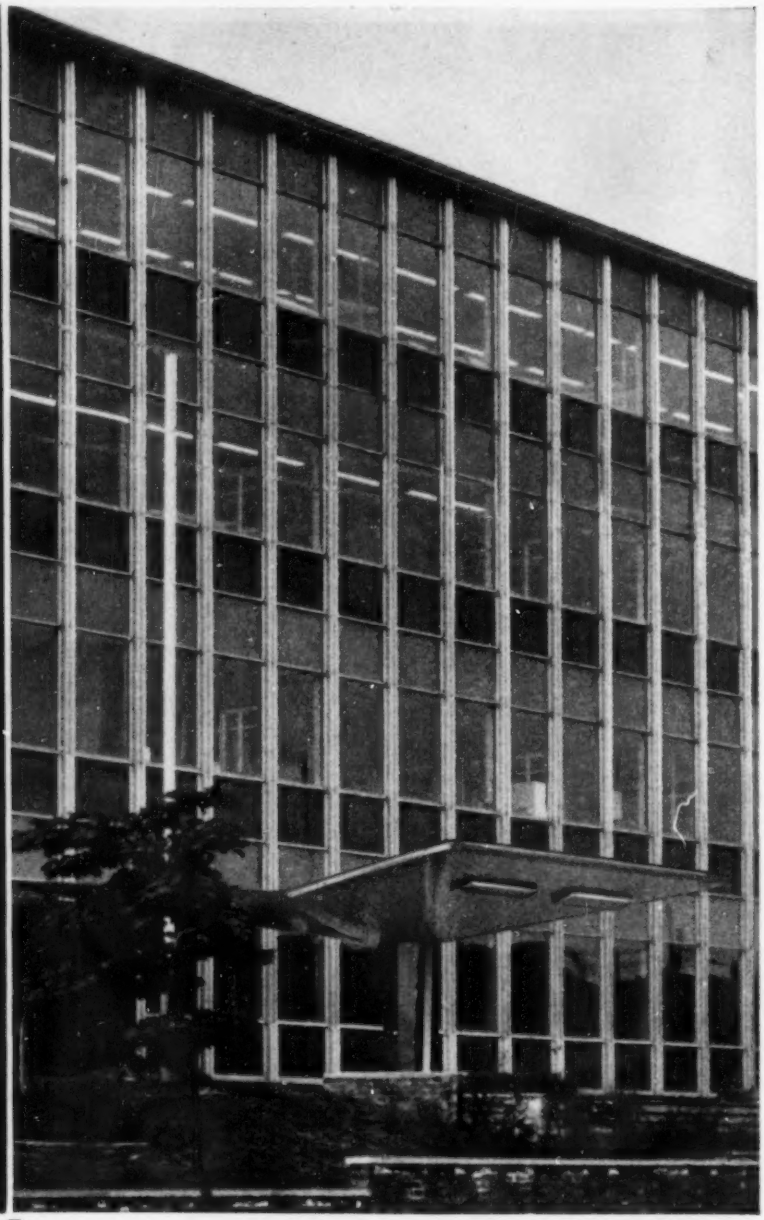

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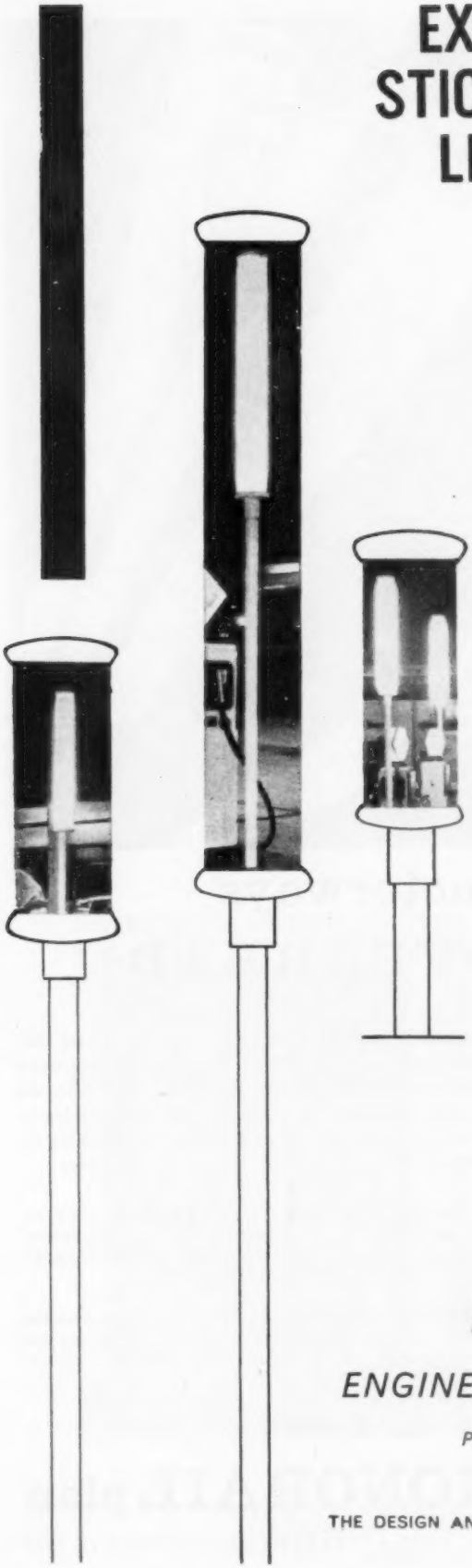

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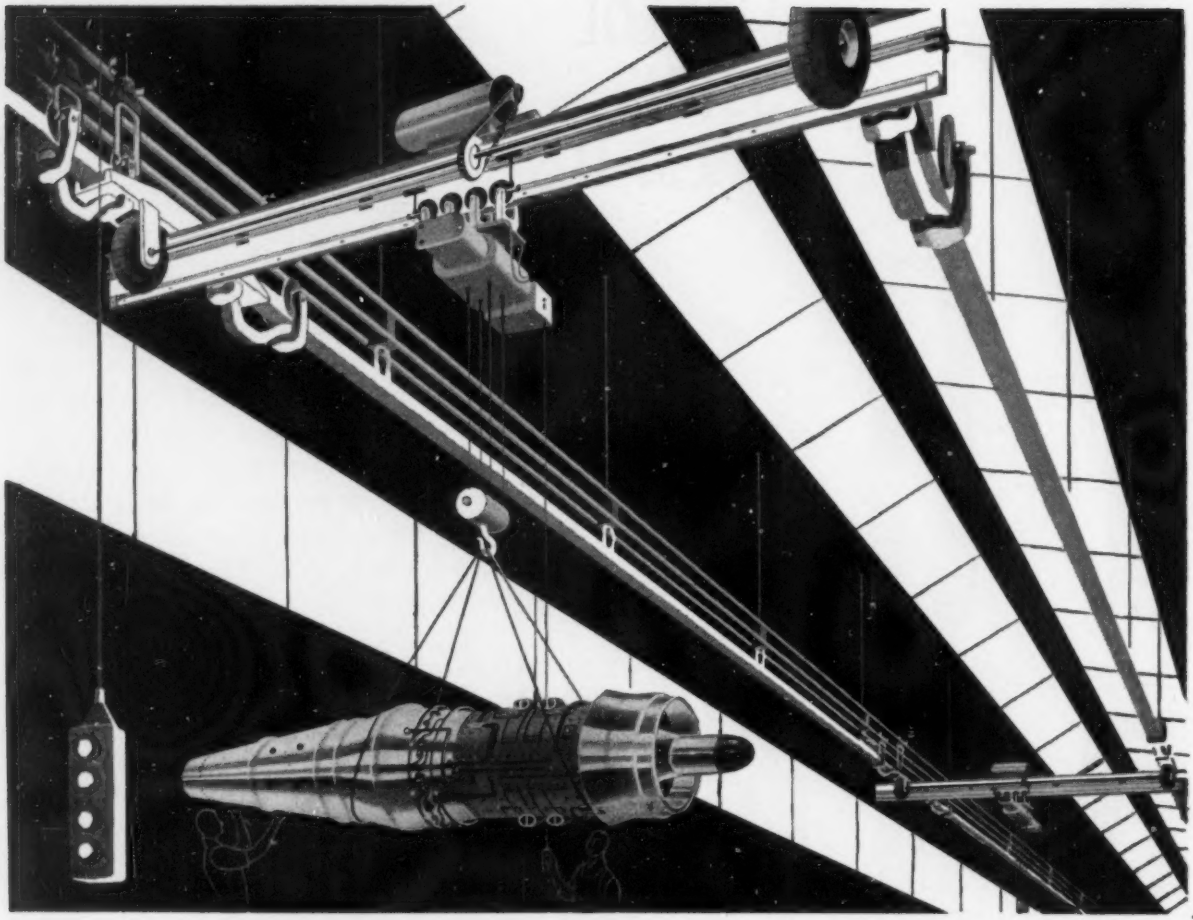
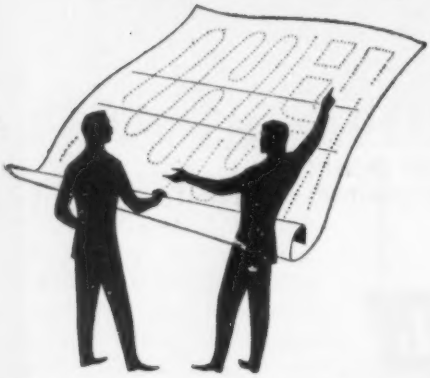


Industry's new motorways speed heavy loads OVERHEAD



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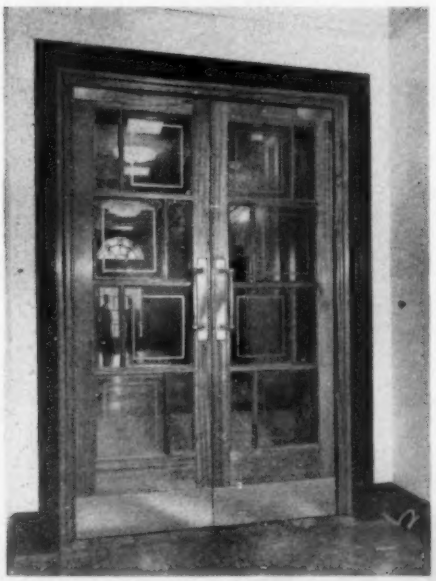

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Architects : Victor Heal and Partners, F/ARIBA

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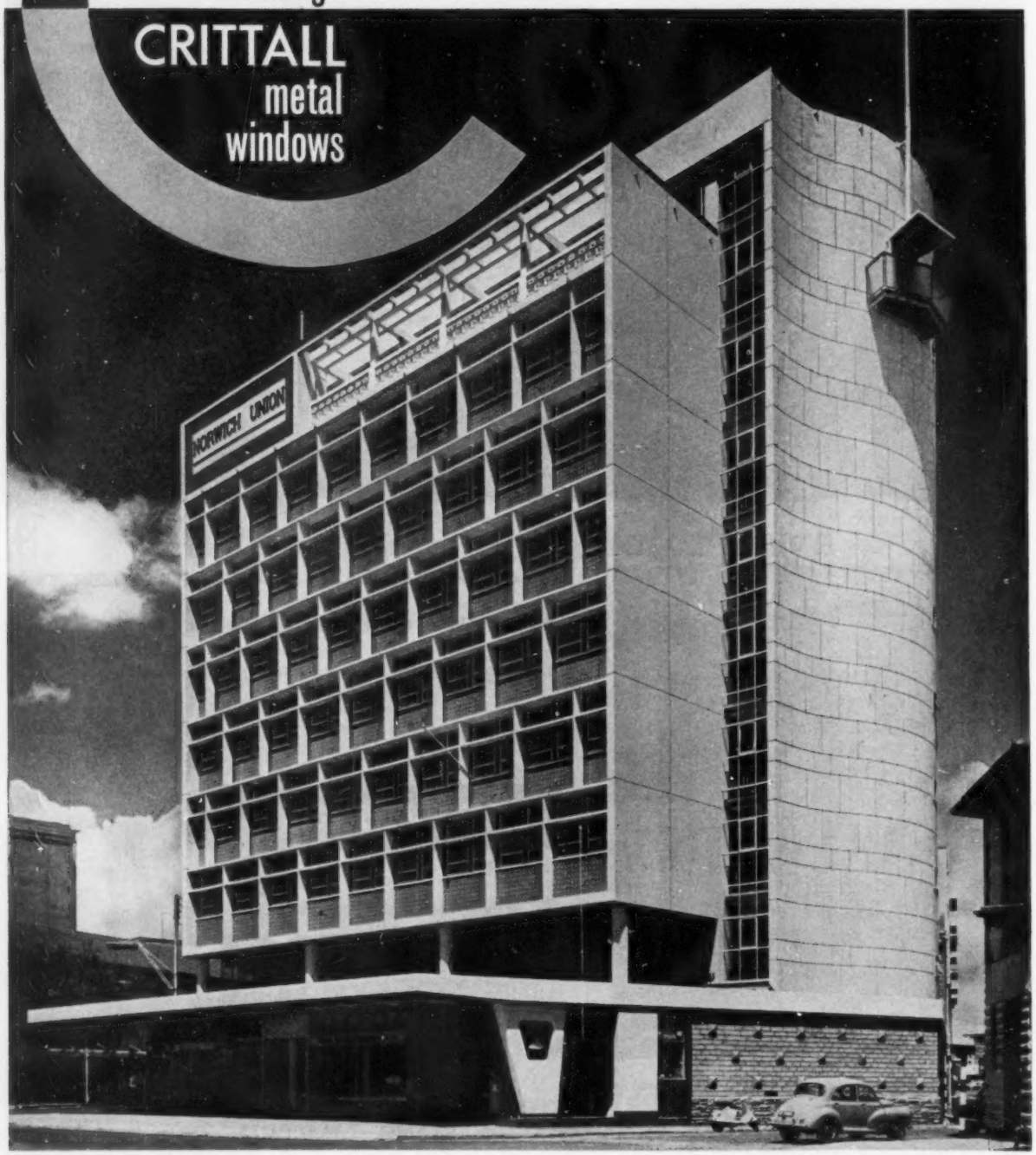

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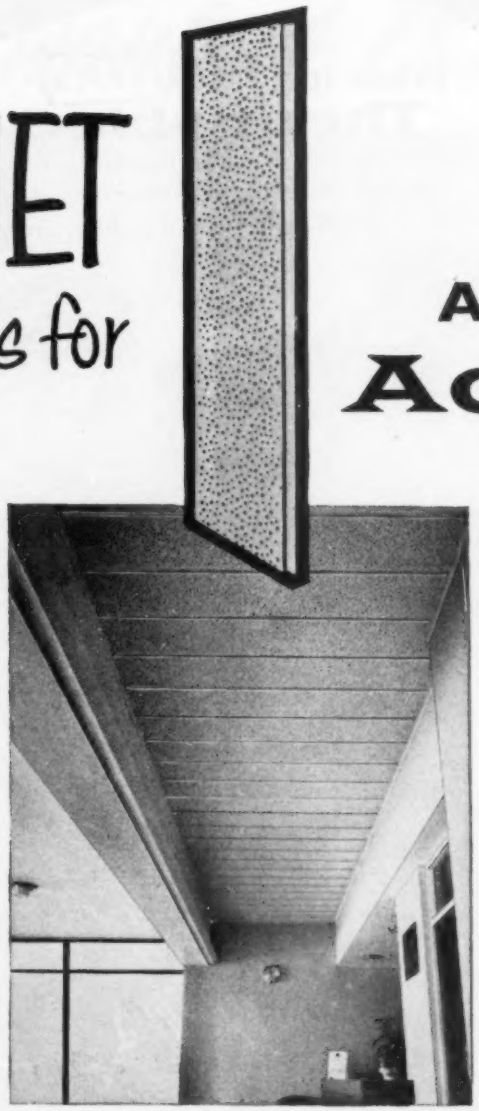

Reception Hall
Midland Industries Ltd
Wolverhampton
Architects:
Bertram Butler
Main Contractors:
William Whittingham
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SCA

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easily adaptable to every fixing system

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Supplied with shiplap joints on two long edges or, if required, on all four edges and are available in 12" or 16" widths by lengths of up to 16 ft. All acoustics are supplied surfaced with white washable paint and can also be obtained surfaced with fire retardant paint to Class 1 BSS 476/53.

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Architect: J. Houghton A.R.I.B.A., Hull
Main Contractors:
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Ceilings by:
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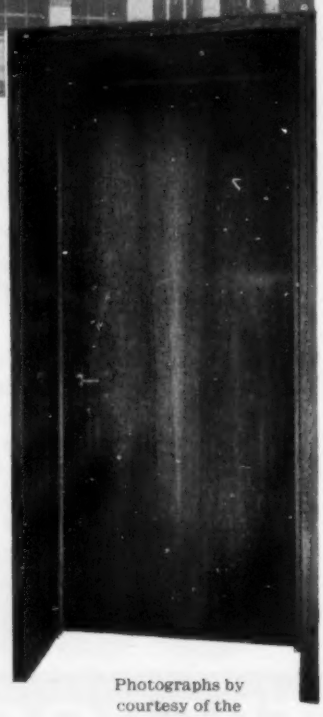

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P.5441

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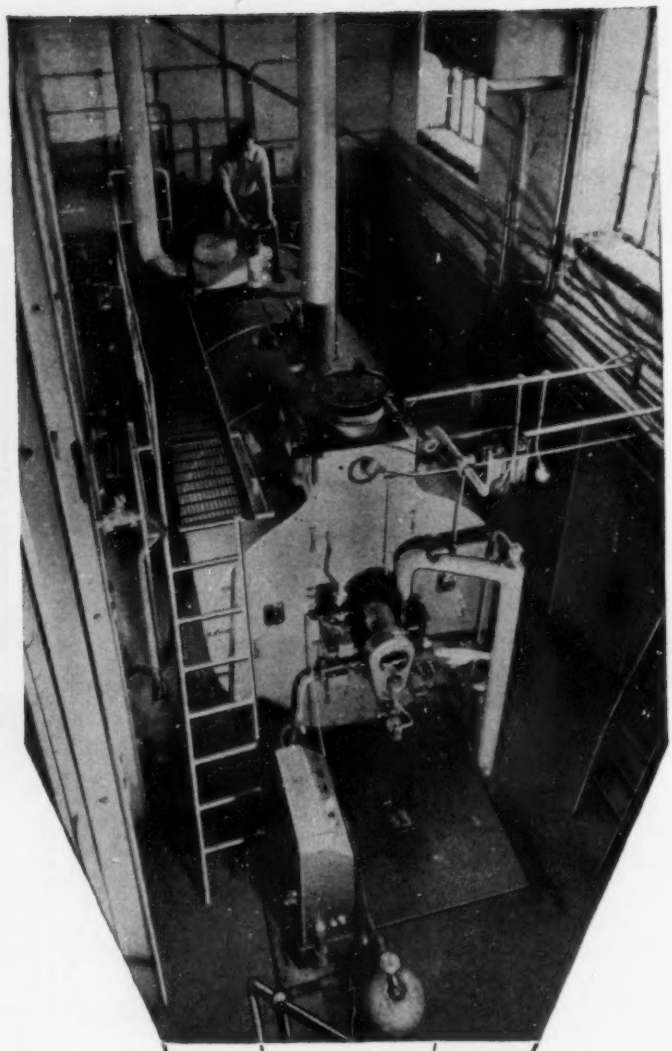

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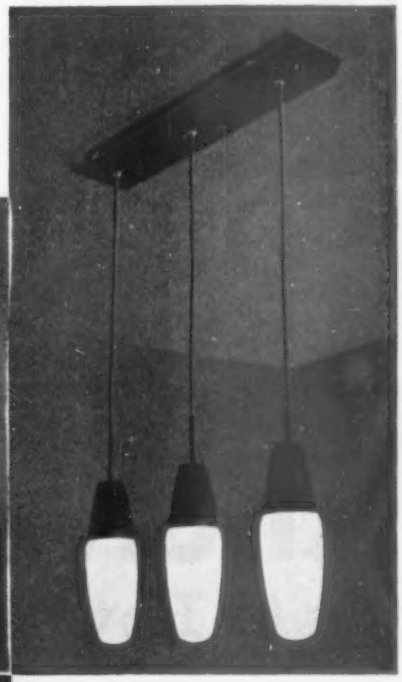

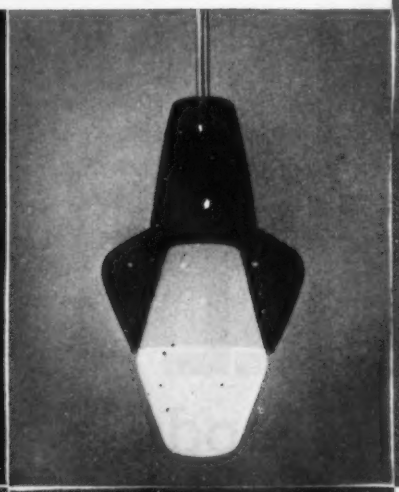

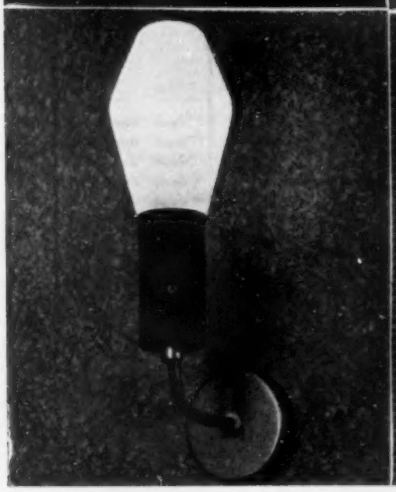

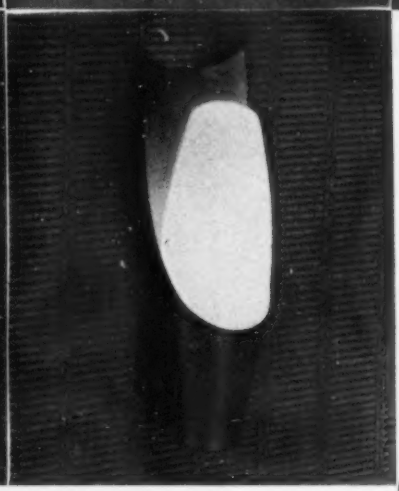

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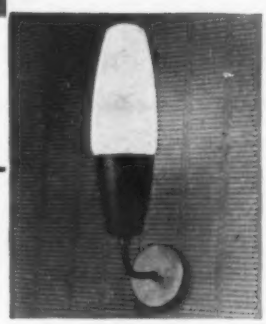

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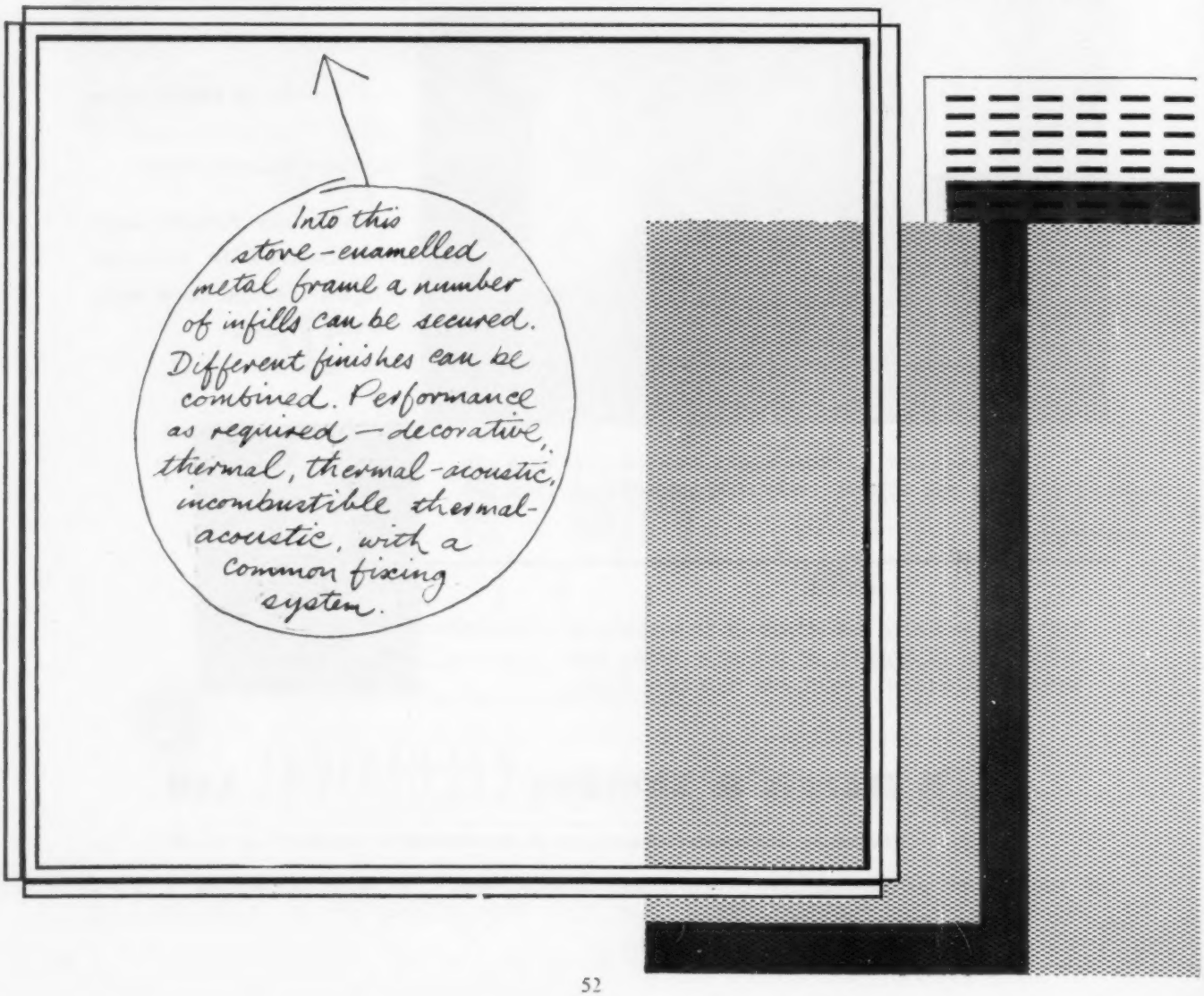

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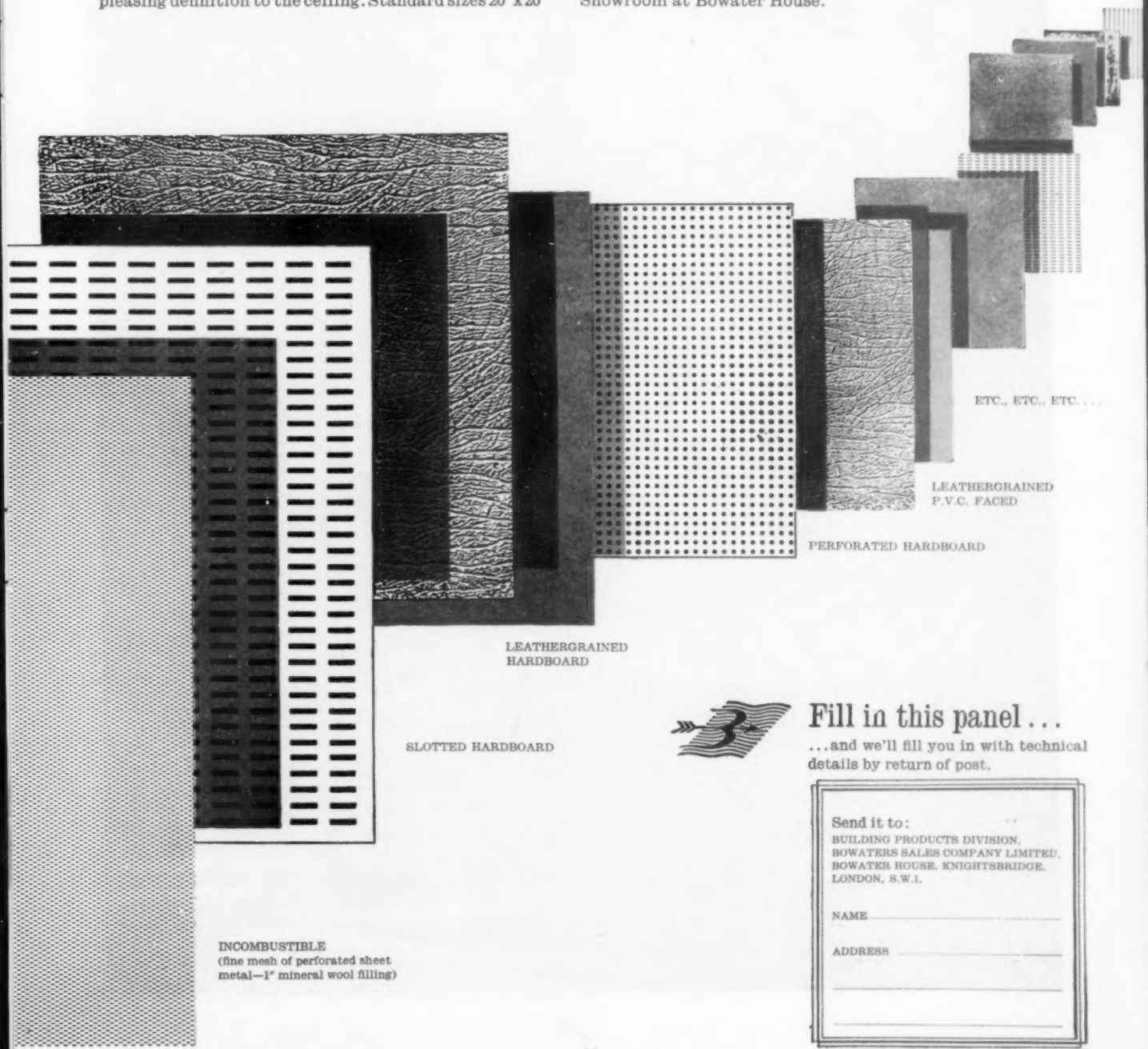

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Awarded the Gran Primio Con Menzione Speciale, this Primary School, Britain's Exhibit at the XII Milan Triennale, incorporates the special system of prefabricated steel construction designed and developed by Brockhouse Steel Structures Ltd., in collaboration with the Nottinghamshire Education Authorities. This system forms the basic element of the Consortium of Local Authorities Special Programme of school building in this country.

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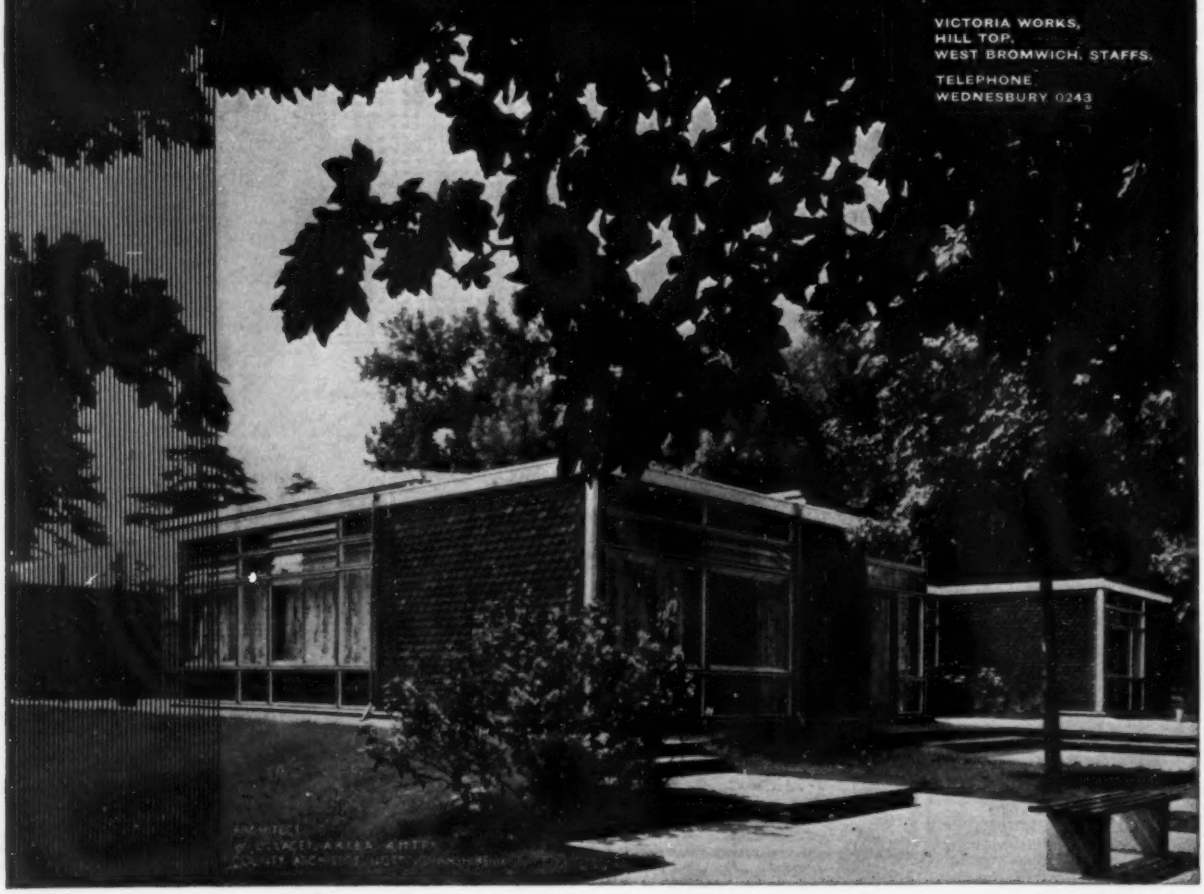


News from Hull

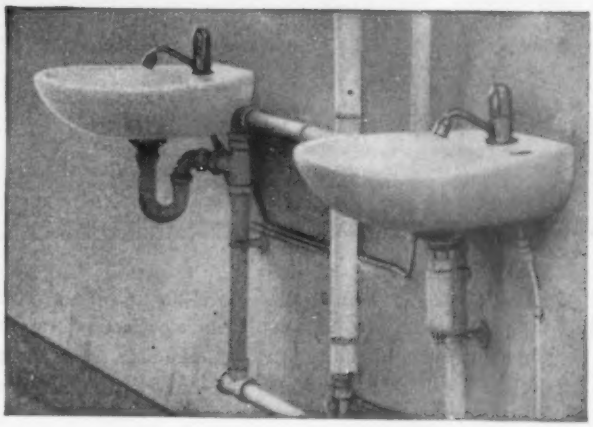
Clean hands and food handling—

Handspray basins make it easier for Food Workers to maintain hygienic habits

Everybody agrees that cleanliness is important when handling food—the workers concerned, their management and public authorities. But when it comes to the point it is often far harder to put hygienic precautions into operation than it is to talk about them.

Take one example. Hand washing. The importance of this when the people concerned are food handlers is obvious. It was with this problem in mind that the Corporation of the City of London introduced 'Standard' Handspray basins in their public convenience in Charterhouse Street which is used by meat porters from Smithfield Meat Market.

The advantages of the 'Standard' Handspray basin are two-fold. Firstly it makes it far easier for a user to wash his hands. There is no need to plug the basin and then mix hot and cold water to the right temperature for washing. The user just turns on the mixer tap and water of the right heat is sprayed over his hands which he can soap and rinse in a matter of seconds. He does not have to empty the basin and swill it out when he has finished.



The 'Standard' Handspray basin saves time and trouble and makes hand washing a more attractive and less tedious task that requires little conscious effort. The novelty of the basin will encourage workers to try it out—when they will find how much simpler it is they will continue to use it.

Secondly, the 'Standard' Handspray basin is made from vitreous china. This in itself is more hygienic than other ware as it is non-porous and non-absorbent. It is impossible for germs to lodge and breed in it.

'Standard' vitreous china equipment has a very long life and a high resistance to harsh treatment. It is easy to clean and maintain and provides improved amenities for the public.

543

INDOOR WEATHER FORECAST

EVERY DAY A 'LOVELY DAY'

with the FRIGIDAIRE Regd. T.M. ROOM AIR CONDITIONER

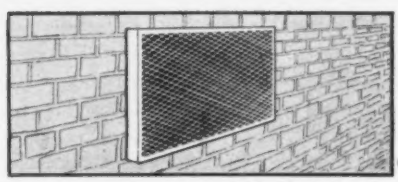
MODEL AIR 100-02

A controlled flow of fresh air, cooled or heated

What sort of day is it today? Cold and damp? The Frigidaire's Thermostatic Control quickly adjusts to provide a perfect indoor climate *every* day —temperature and humidity just right. Here is a room air conditioner that brings in a regulated flow of fresh air—filtered, dried, cooled or heated (as the weather changes).

This attractive unit can be easily installed in either window or wall, in premises new or old. And it functions quietly, competently—powered by the famous Frigidaire 'Meter-Miser' warranted for five years.

* Simple, easy to use controls * Aluminium filters clean the air as it passes into the unit * Easy to install * Compact size—26″ x 18¼″ x 16″ * Powered by the exclusive Frigidaire 'Meter-Miser'—sealed in steel, oiled for life—warranted for five years * One-piece wrap-round cabinet construction * Insulated top and sides * Extra capacity fan motor

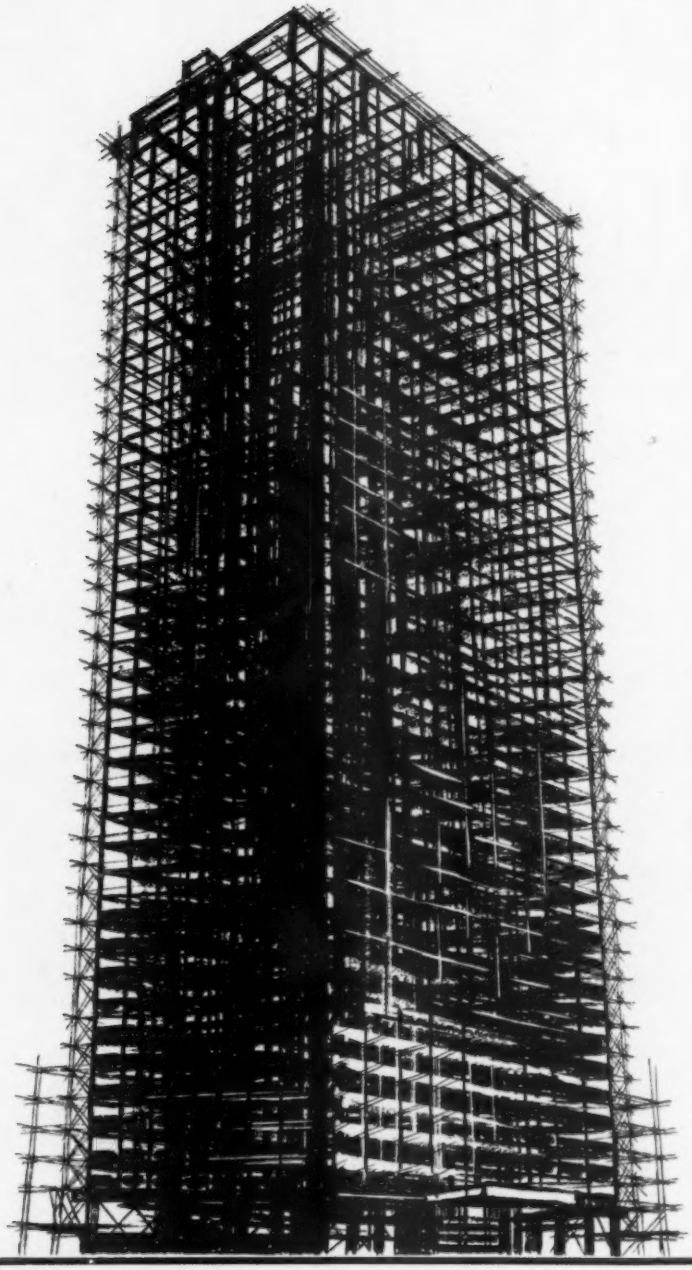


Shown here, the *installation kit* (optional extra) for wall mounting. Kit includes a shell with neat grille, into which the conditioner is placed. Enhances exterior appearance, makes installation and servicing easier.

For information about any aspect of air conditioning or refrigeration consult your nearest Frigidaire distributor, or write to:

FRIGIDAIRE DIVISION OF GENERAL MOTORS LTD.
STAG LANE · KINGSBURY · LONDON · N.W.9

THE FRIGIDAIRE ROOM AIR CONDITIONER ideal for offices, conference rooms, lecture theatres, hospitals, hotels, wherever people congregate.



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When you specify Johnson's, you specify the products of the world's largest manufacturer of seals and polishes — Johnson's have the right seal and finish for *all* floor surfaces. It also means that whatever your problem, you can get technical advice free and without obligation, from a large force of trained representatives. They are backed by the largest research organisation in the industry.

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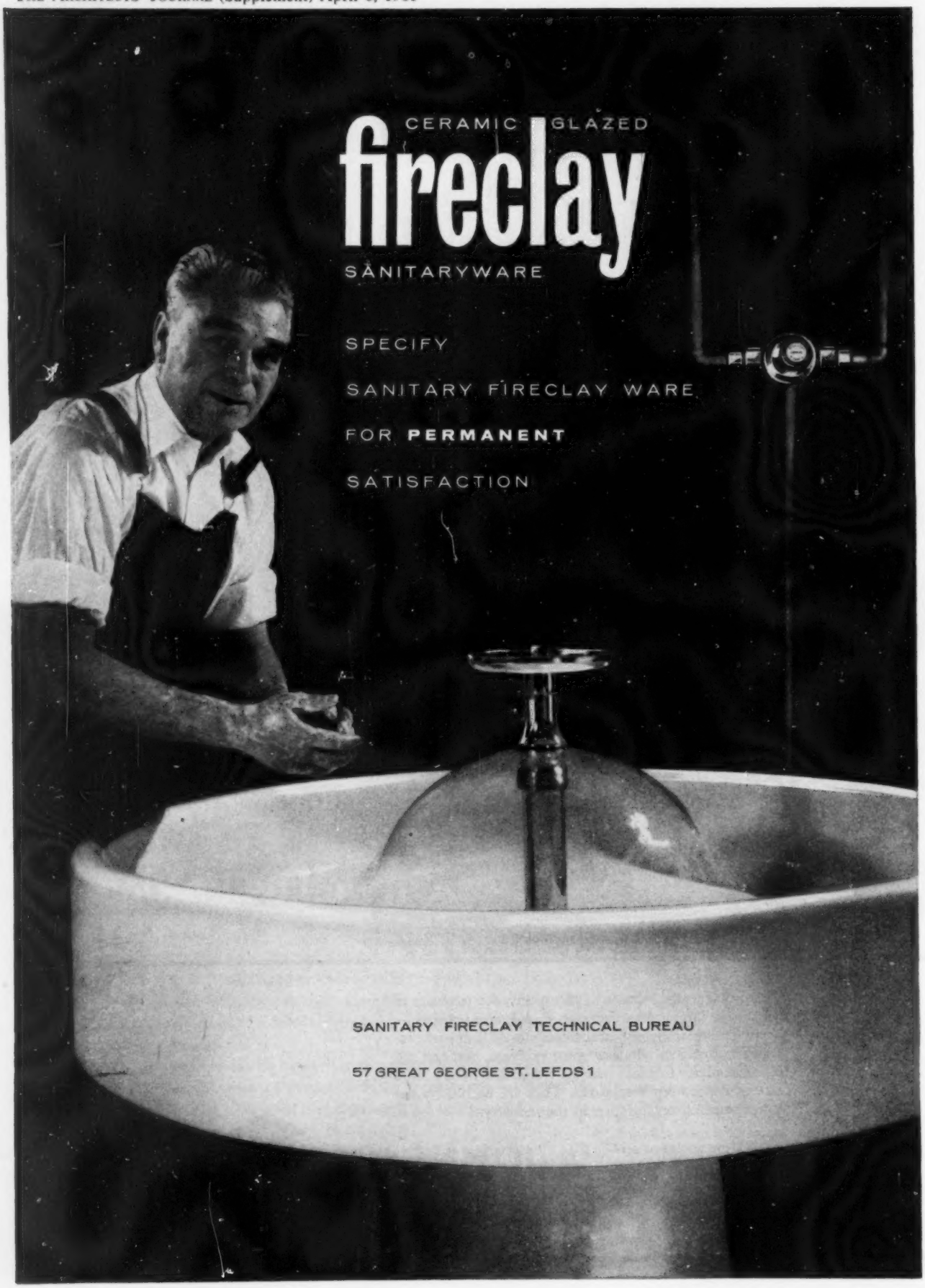
S. C. Johnson & Son, Ltd., Frimley Green, P.O. Box 9, Camberley, Surrey *Telephone: Camberley 3456*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Our Staff has been augmented to include personnel experienced in the design and manufacture of vitreous enamel products for the Building Industry. To provide the highest possible standard of quality and service a completely new and up to date plant including a vertical HANGING Furnace is being built. Based on experience gained in this country and in the U.S.A. the latest type of equipment is being installed.

Free brochure tells the whole story. A new brochure, 'B-VIT Vitreous Enamelled Steel Architectural Products,' tells the story in detail. Write for your copy NOW!

AN EXTRACT FROM THE CATALOGUE SHOWING A TYPICAL INFILL PANEL

Approx. Max. Size	Weight lb./sq. ft.	Overall thickness	"U" value
No. 1 7' x 4'	4·5	1" upwards	·30 to ·20 approx.
No. 2 8' x 4'			

Both type "C" formations are solid laminated panels of great rigidity and strength with four available core materials, i.e. phenolic resin impregnated paper honeycomb filled with vermiculite, foamglass, insulation board or cork slab.

No. 1 fully flanged vitreous enamelled facing with wide choice of flat backing sheet materials, predecorated if required to provide desired internal finish, e.g. vitreous enamelled, galvanised or stoved steel, stelvetite, asbestos, Emaille board, etc. Suitable for butt-jointing.

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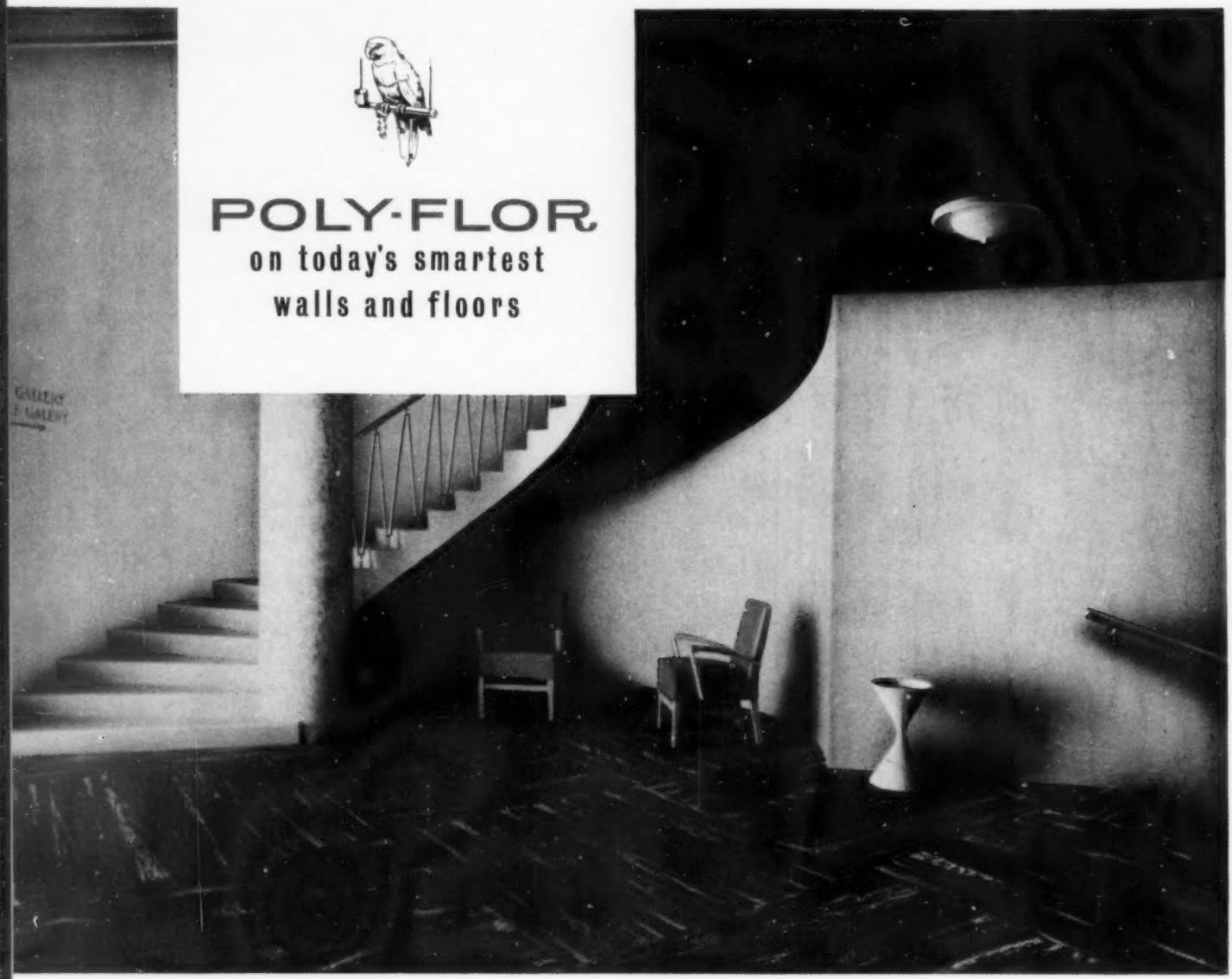

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POLY-FLOR 90 gauge true *P.V.C. Flooring* and Poly-Flor 45 gauge *Wall-Cladding* was extensively used in this magnificent Wool Exchange Building, acclaimed as the finest of its kind in the world. Poly-Flor 90 gauge on the floor areas gives them a handsome elegance which can so easily be maintained with only soap and water. Poly-Flor 45 gauge is the inspiring wall cladding used on the large wall surfaces—inspiring enough to dream—"I dwelt in Marble Halls". Doors, Pillars, Reception counter tops and a host of other surfaces were likewise covered with this versatile material—

45 GAUGE

90 GAUGE

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ROFTEN

self-contained

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Simply stands in place—
No structural work needed

Now bathing facilities can be installed in any property—The Roften self-contained Showerbath makes it so easy, so quick and economical. No structural alterations are required—it simply stands in place and is easily connected to existing water and waste pipes.

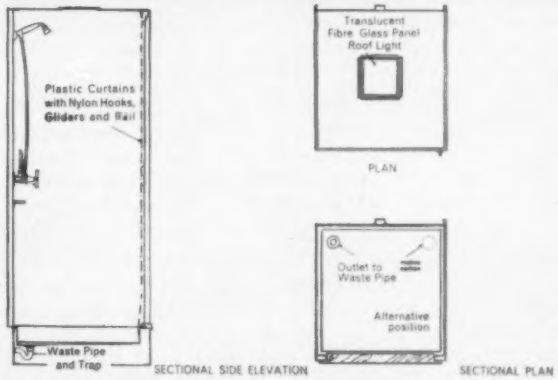
So many small spaces in all types of property are waiting for the Roften Showerbath. It will quickly complete the modern bathroom—there is usually plenty of room for this self-contained unit. In the smaller house where no bath exists and space is short, the Roften is the simple way to provide a shower—it needs only 3′ x 2′ 9″ floor space (and in this case the improvement may qualify for a modernisation grant). It is just as simple to stand this unit in a bedroom, or downstairs to convert a cloakroom into a bathroom. The Roften Showerbath is prefabricated in wipe-clean stove-enamelled rustproofed steel. A choice of four colours is available, with a standard black plinth: BS 4055 yellow; BS 1020 pink; BS 6069 green, and white. Delivered complete in two strong containers.

Standard fittings

Anti-scald hot and cold mixer unit with single handle operation. Choice of fixed swan neck spray tube or flexible spray tube with 2 wall brackets. Natural colour plastic curtains with nylon hooks, gliders and rail. Chromium plated robe hook. Chromium plated soap dish. Fibre glass roof light. Chromium plated waste and copper waste trap. Plug.

Price complete: £53

Minus mixer and spray with back panel undrilled: £42



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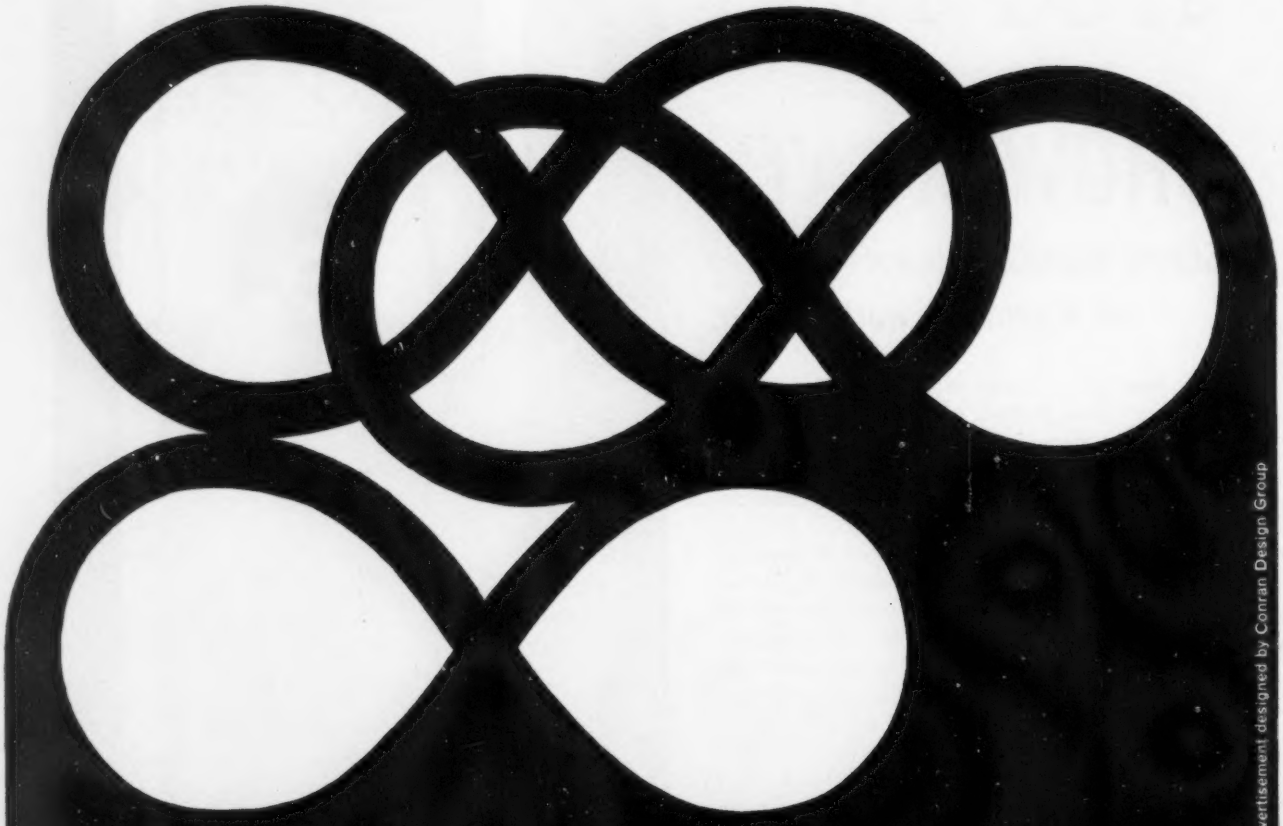

Advertisement designed by Conran Design Group

a section of the new Conran showroom is equipped to handle all aspects of interior furnishing. In collaboration with architects the Contracts Division will carry out all details of interior schemes.

Specifically

1 Undertake interior construction and contracting work including wall claddings, painting and decorating work and the manufacture of special fitments.

2 Supply a very wide range of furniture drawn from our own and other manufacturers' ranges, including a number of exclusive Scandinavian and Italian imports.

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4 Supply and lay floor coverings—from linoleum tiles and mosaics to carpets and specially designed rugs.

5 Manufacture and install office partitioning, either to architects details or our own system which is fitted in the showroom.

6 Accessory items are also available — light fittings, filing trays, waste bins, ashtrays, metal filing cabinets.

7 In addition to these facilities there is a substantial library including veneers, marbles, linoleum, paint finishes, P.V.C. upholstery materials—for architects reference.

finally

8 Our Design Group is available both for consultation on specific interior planning problems or to co-operate in detailing special furnishing requirements.

Please contact us if you feel that we can help you: better still visit our showrooms to see this very comprehensive permanent display.

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Conran and Company Limited
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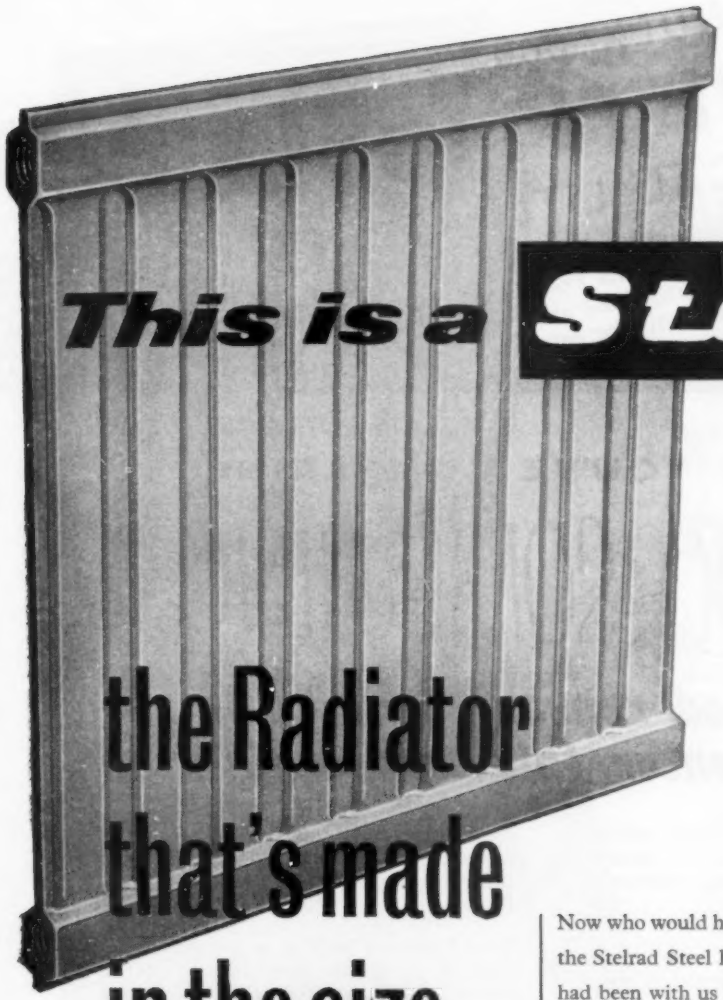
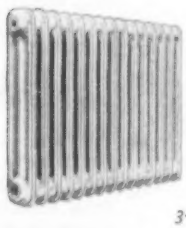


This is a Stelrad

the Radiator that's made in the size you want, and in the shape your client likes

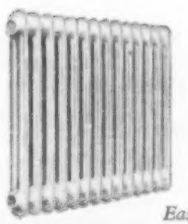
Double Wall

Angle-Wall



3-Column

Now who would have thought the Stelrad Steel Radiator had been with us for nigh on twenty-five years? Why, you can probably remember people telling about it at the time.



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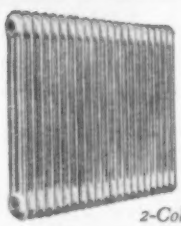
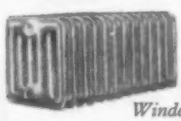
Some were doubters, holding forth about steel and how the only Radiator to use was one that was not only heavy to handle but ungainly to behold. But where is the Stelrad today? In buildings large and small throughout the length and breadth of the land, and in a range so wide there is not a single nook a Stelrad cannot heat.



2-Column



Window seat type

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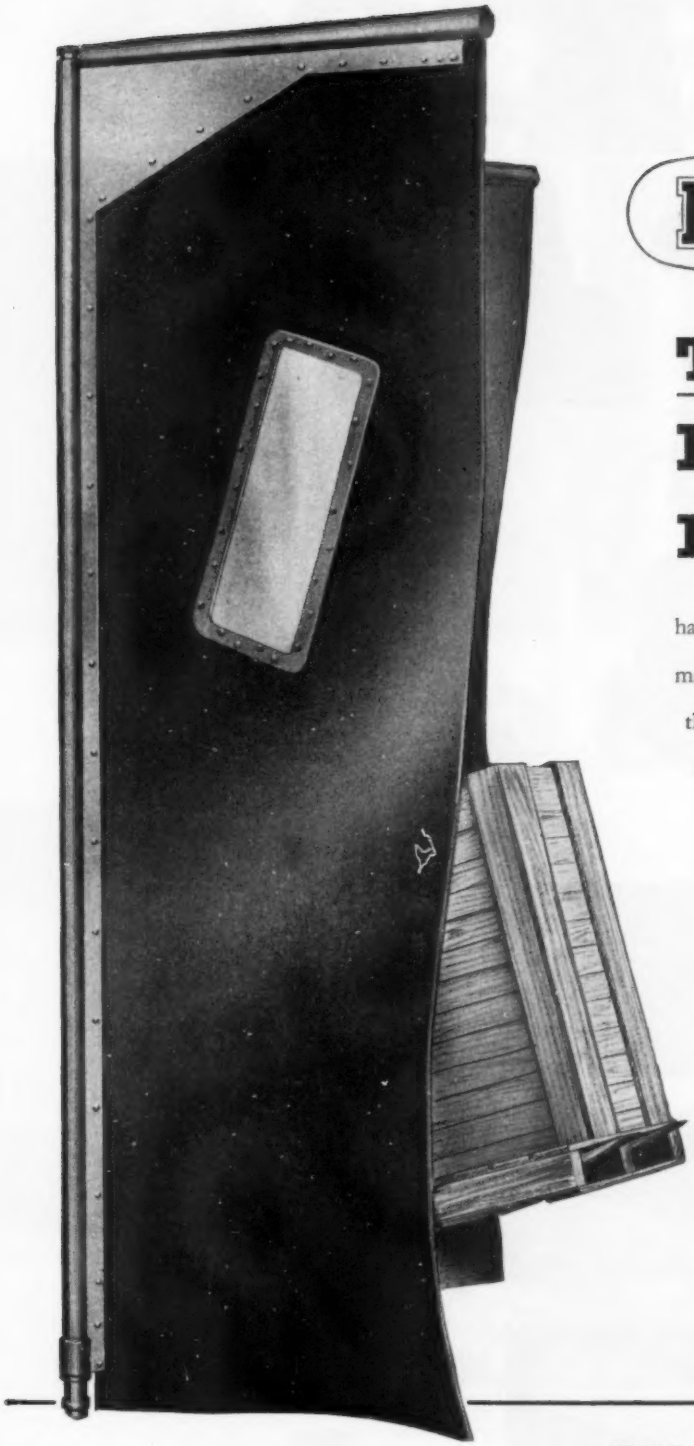

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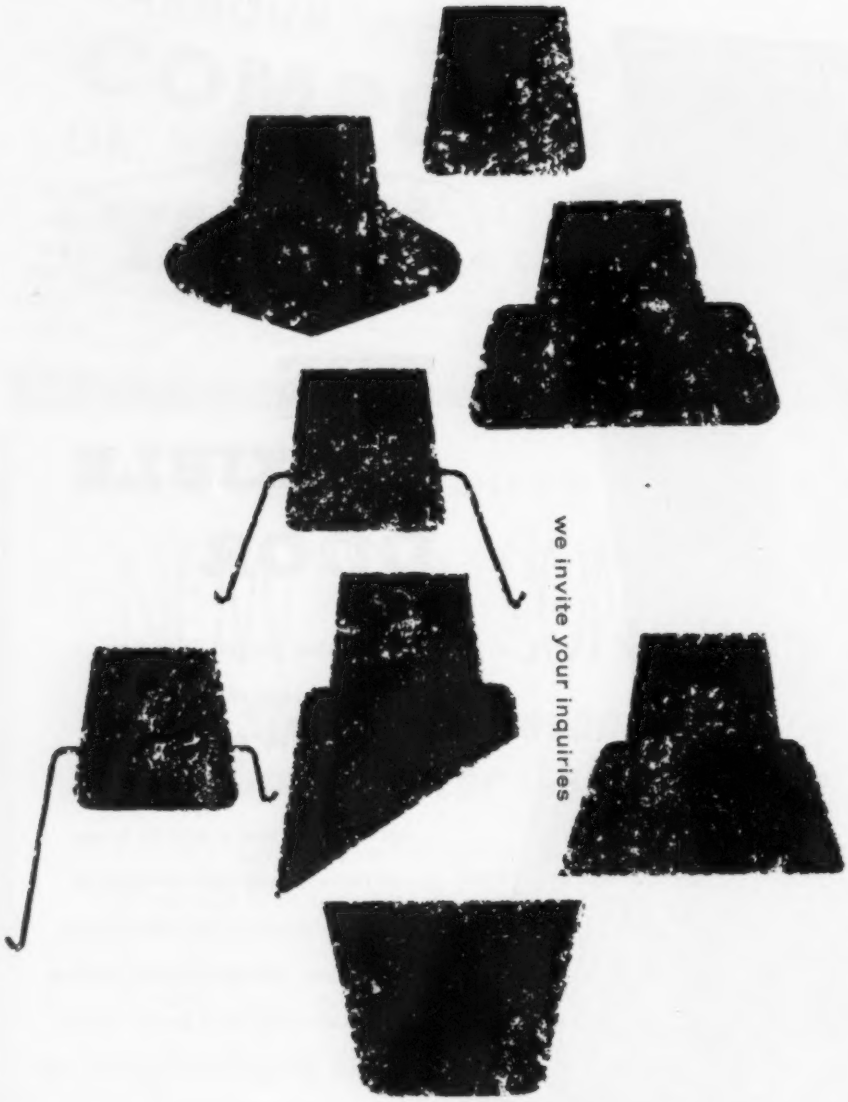

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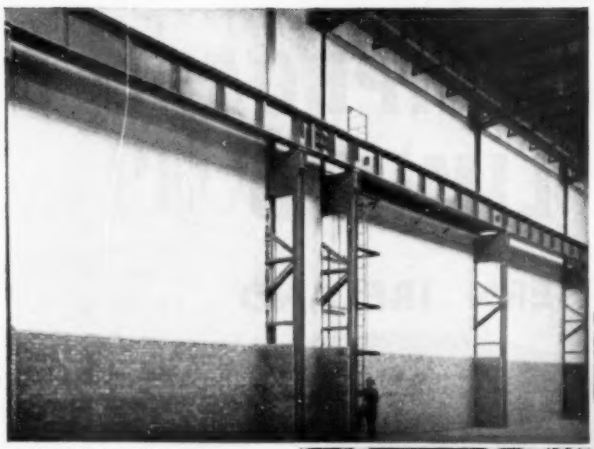

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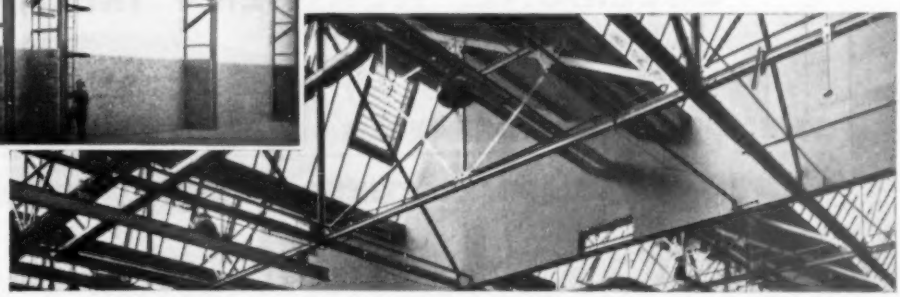

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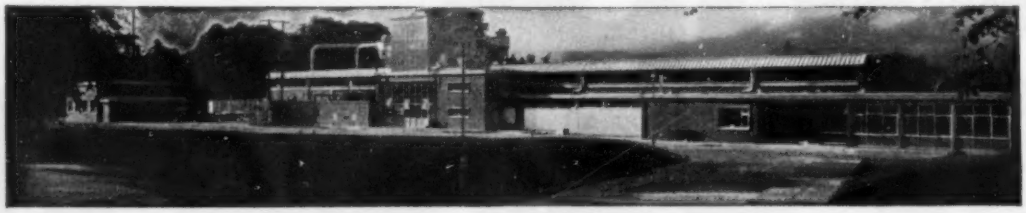

Ulster Chipboard Factory, Coleraine.

Architects: McCutcheon & Wilkinson L/ARIBA Coleraine and Ballymena.

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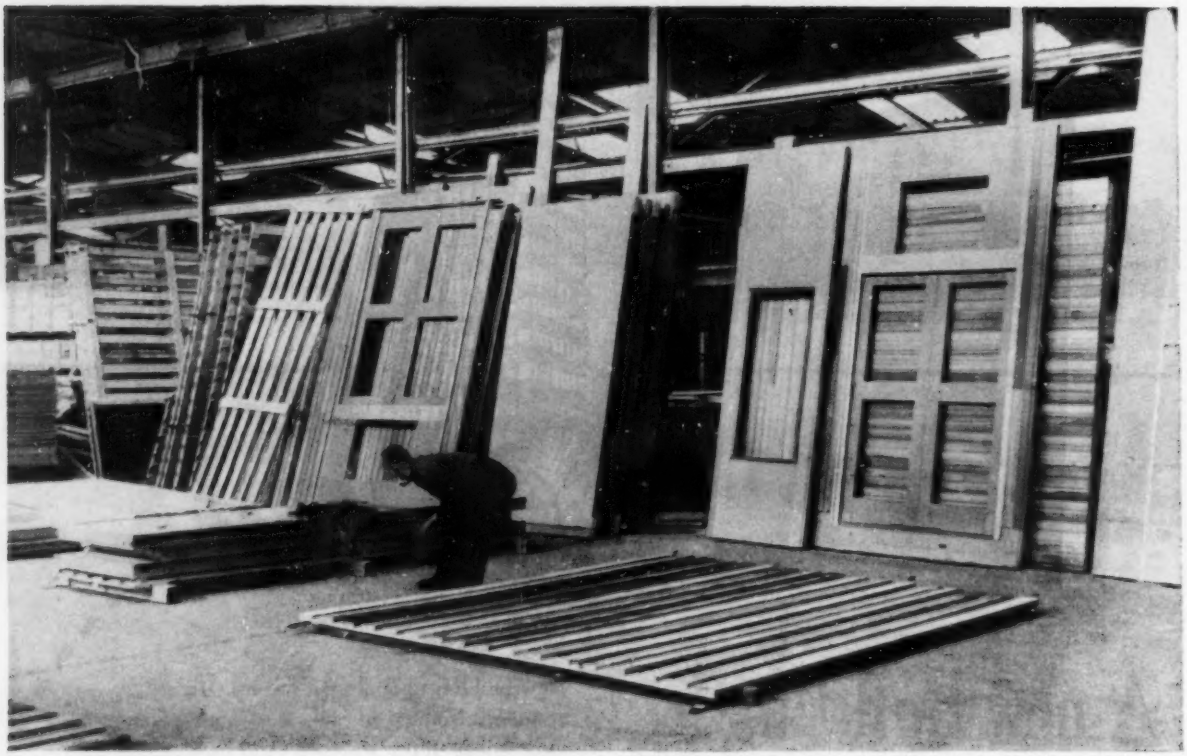
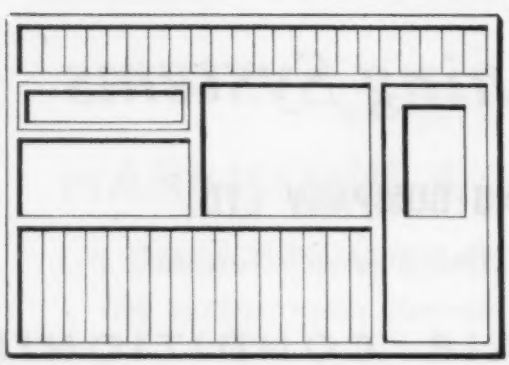


Photograph by courtesy of British Simms Buildings Ltd.

Elements of construction

Prefabricated panels, made economically in timber, require protection from fungal decay and insect-grubs. Termites too are their enemy in warmer climates and fire can strike anywhere. 'Tanalith' C impregnation will impart resistance to all forms of biological hazard (grubs, termites, fungi) however severe the exposure, and it will never wash out. Alternatively, 'Pyrolith' impregnation offers similar protection, in addition to its primary function—flameproofing. Treated permeable species comply to the Class 1 spread of flame rating as defined in BS:476. 'Pyrolith' treated timber in composite structures assists in obtaining the desired fire endurance demanded by Bye Laws and minimises flamespread. Neither treatment has any unpleasant side effects and the timber remains clean and attractive. It can still be cross-cut, glued, screwed, bolted, nailed and painted. Only a pleasant greenish colour indicates that a piece of timber is 'Tanalised' whilst a yellowish-green identifies 'Pyrolith' treatment.

Please write for technical literature and advice on specific problems.



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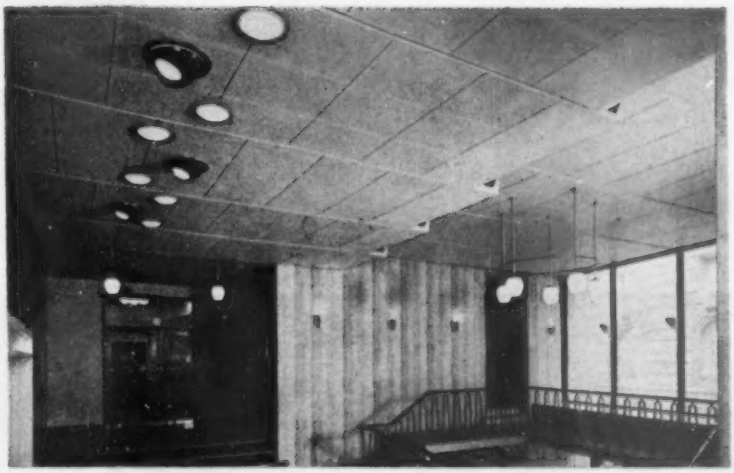

Liverpool Corn Exchange *Architects: Harold E. Davies & Son,* A.R.I.B.A.
Contractors: Tysons (Contractors) Ltd.

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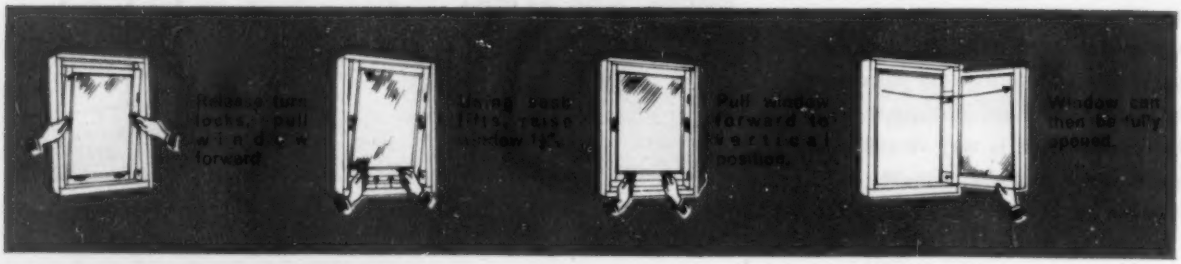

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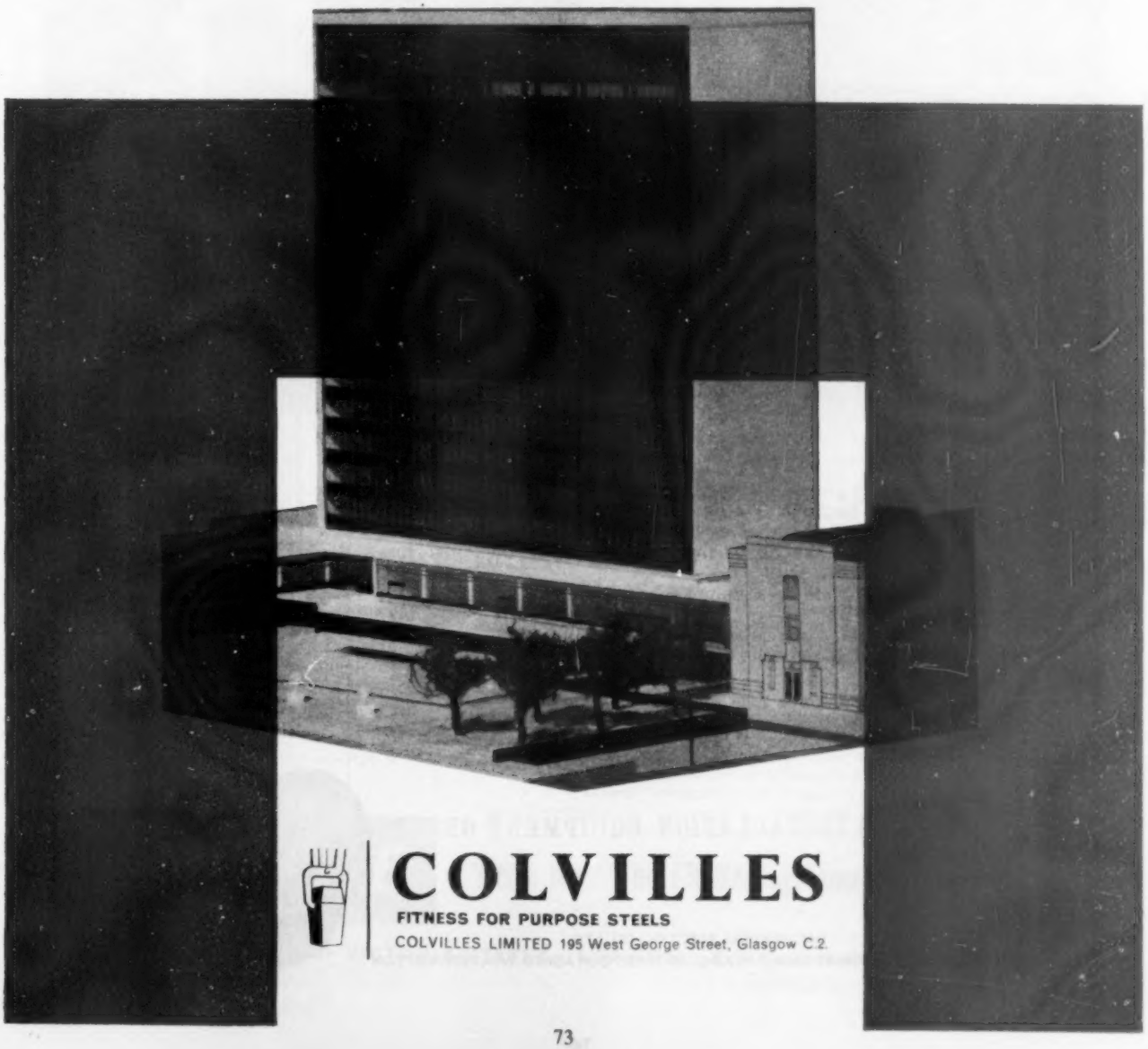

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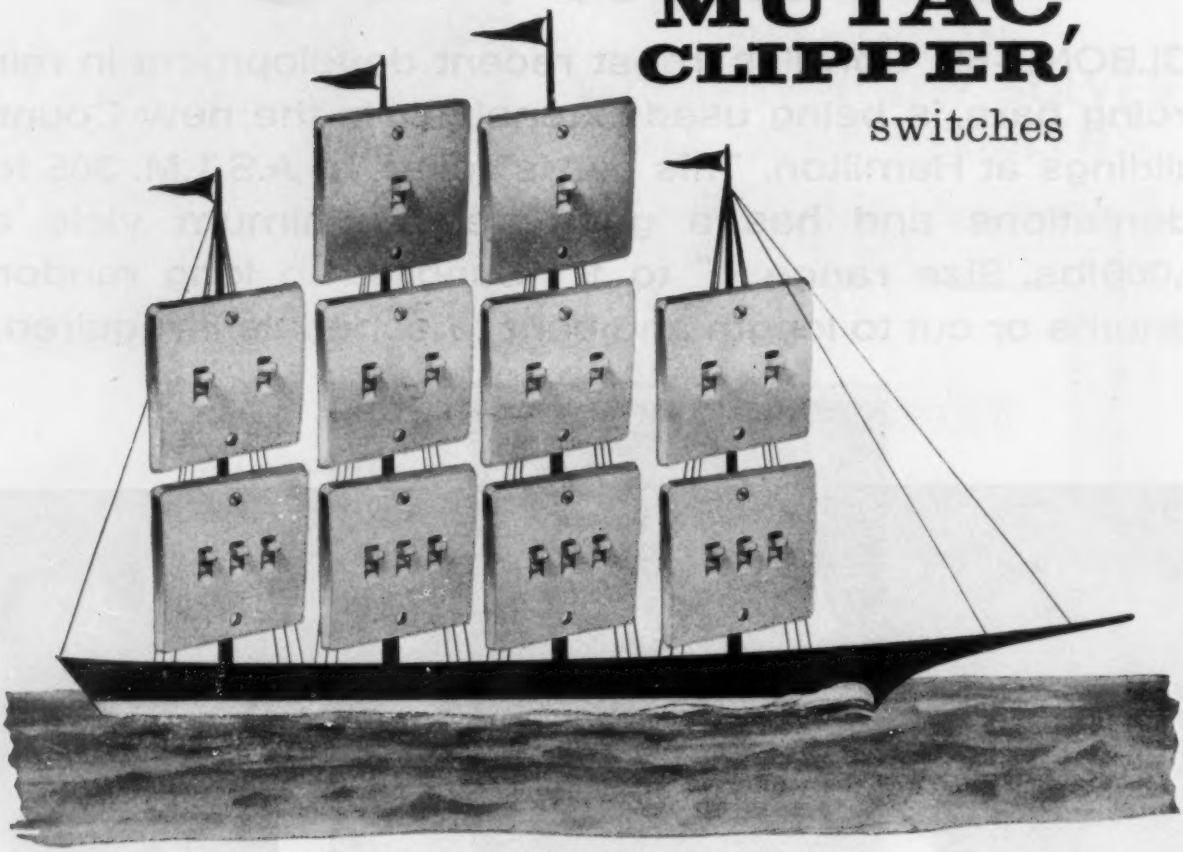

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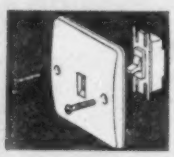

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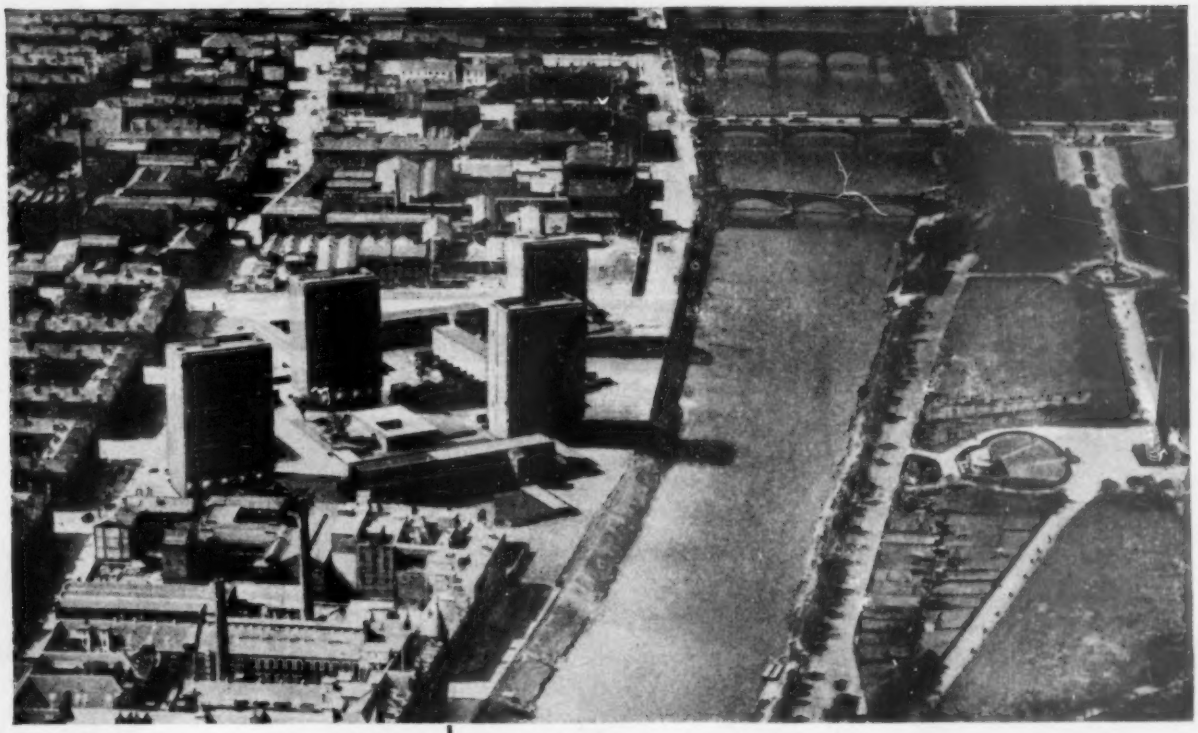

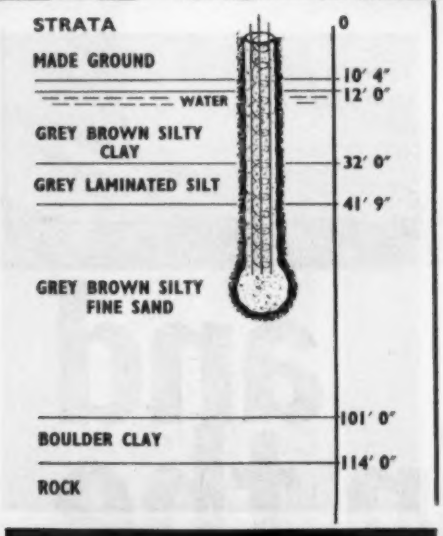

PROBLEM

Four seventeen-storey blocks of flats were constructed on this site, the floor area of each being about 90′ x 90′, and imposing a load at ground level of about thirty cwts. per square foot. As will be seen from the strata details there is a very high water table about 12′ below ground level, and between that and the rock, which is over 100′ down, there is nothing but silt and sand. Ordinary footings would have been out of the question due to the high water table, and the problem was how to carry this high concentrated load without taking piles right down to the rock.

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Engineers: F. A. Macdonald & Partners
General Contractors: A. A. Stuart & Sons (Glasgow) Ltd
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Working Load: 45 tons · **Average Length:** 57 feet

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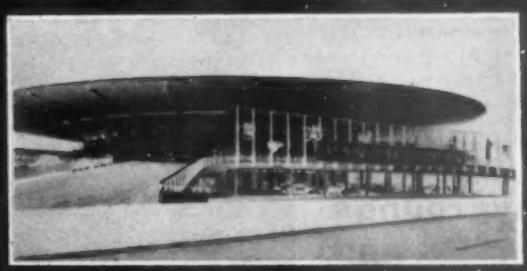

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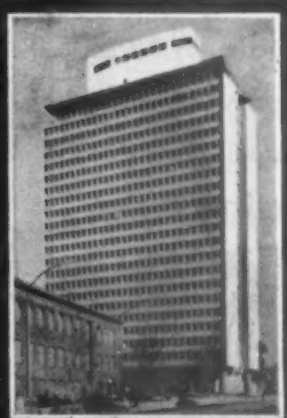

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Introduction by Alfred Ledermann and Alfred Trächsel. Translated by Ernst Priefert. Size 8¾ by 11¼in. 176 pages with 302 halftones and 83 line illustrations. 63s. net, postage 2s. 0d.

It is now recognised by planners and local authorities that imaginatively-designed children's playgrounds and adult recreation spaces should be regarded as an essential amenity for all urban areas of any size, whether new or old; but so far very few really successful examples have appeared in the British Isles, and children in towns and cities continue, at their peril, to play their games in streets and on roads. On the Continent, in Scandinavia and in the U.S., however, the subject is being tackled with the seriousness and care that it deserves, and there are many interesting and successful solutions to be seen.

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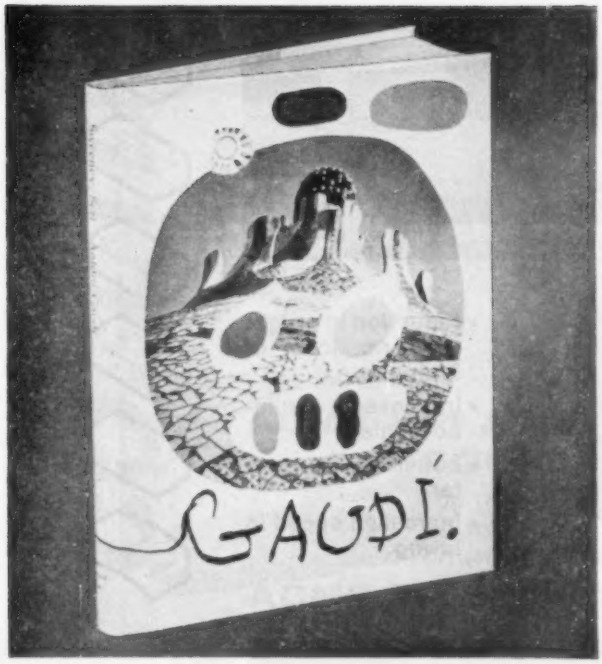

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by Josep Lluis Sert & James J. Sweeney

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Writing with detachment and without prejudice, the authors trace Gaudi's life and work from his days as a student to his death in 1926. The picture which emerges is that of a wholly sincere architect-builder who lived only for his chosen work; one who quickly freed himself from the then accepted imitative styles to build in accordance with his own personal and highly original principles. The authors lay stress on Gaudi's constant reference to nature, his preoccupation with structural principles, his habit of making models which showed him exactly what loads and stresses his buildings would have to bear. A dramatic collection of photographs in monochrome and colour, together with many detail drawings, show that Gaudi's work richly deserves the attention it is now receiving.

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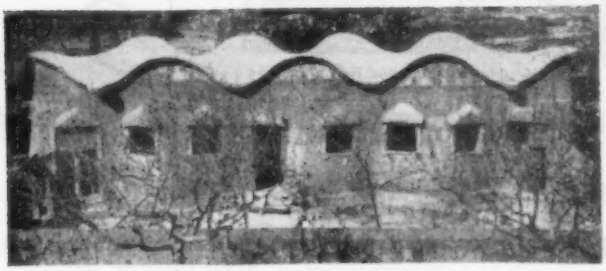

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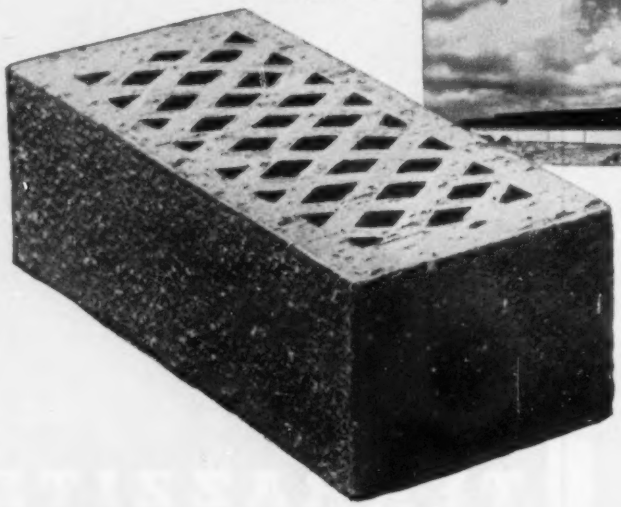

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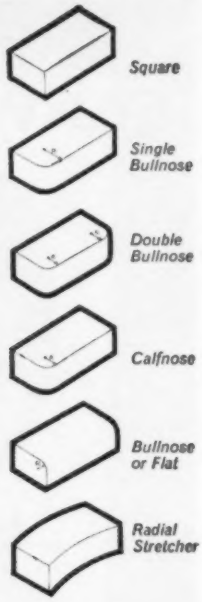

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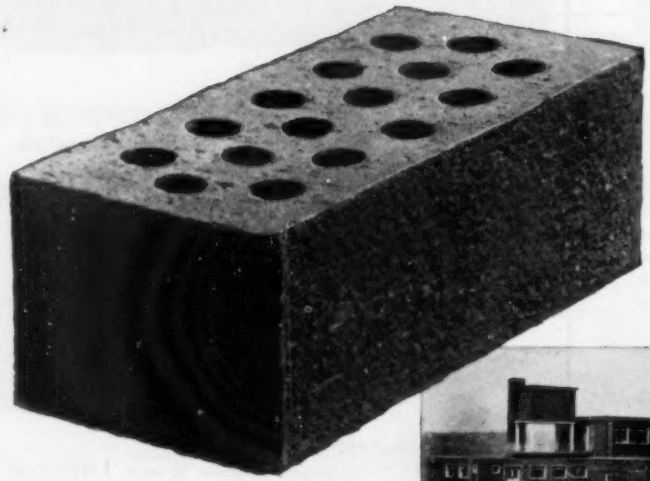

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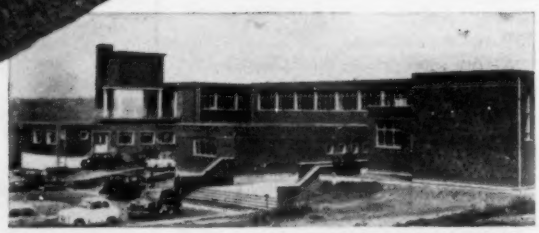

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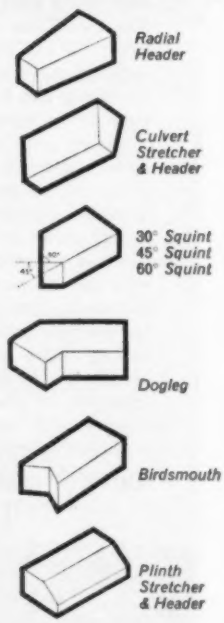

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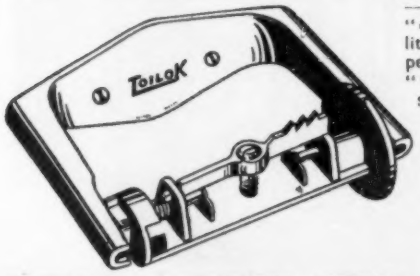

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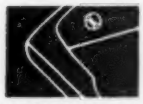
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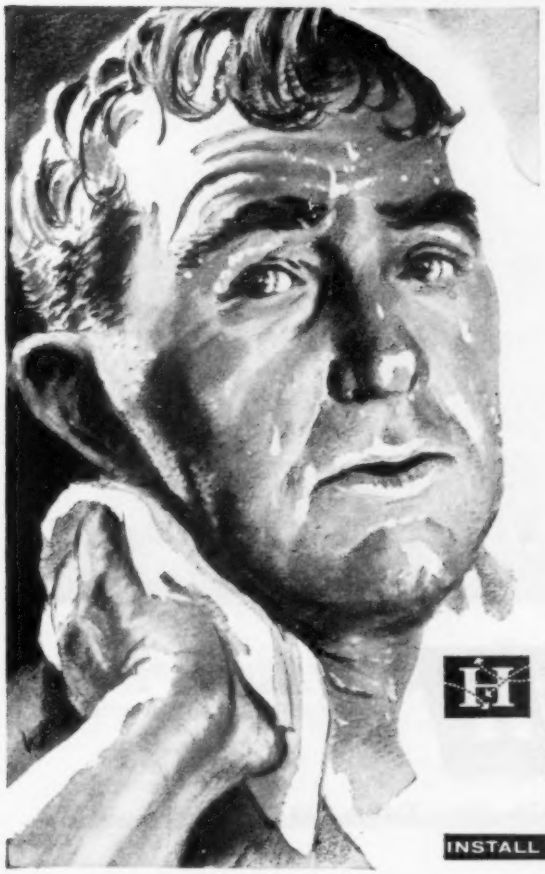

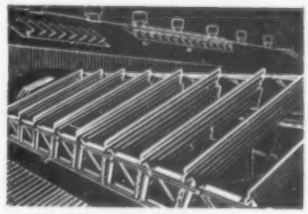

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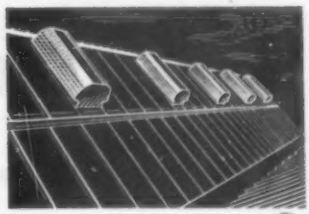

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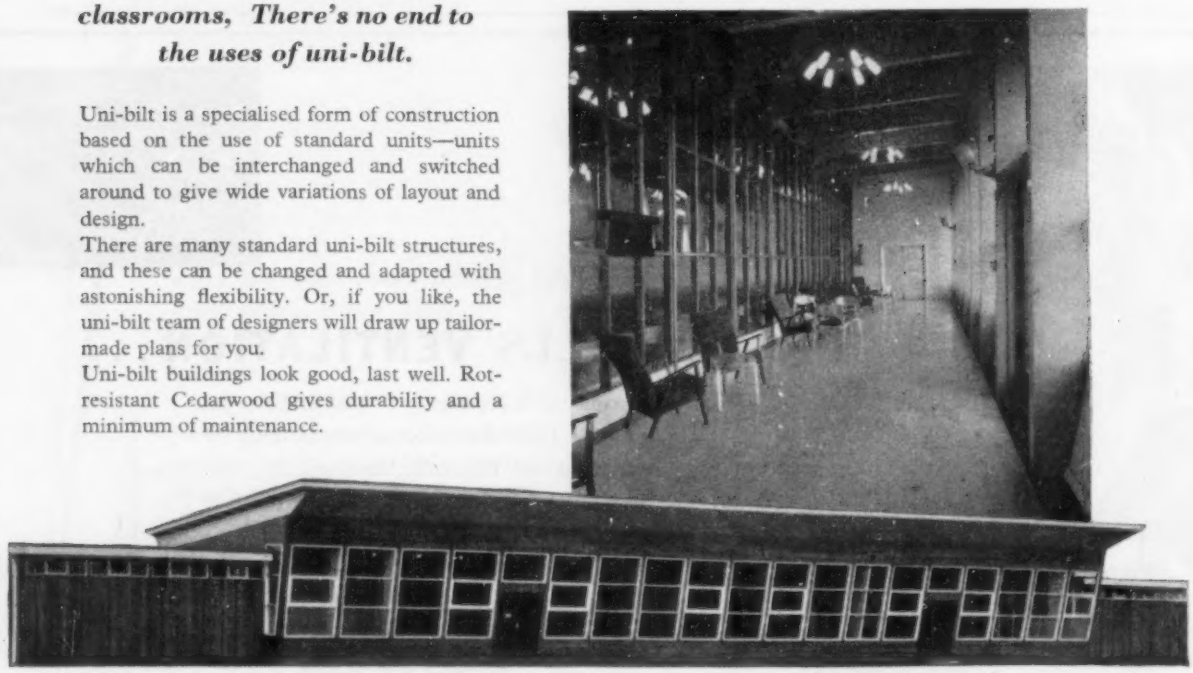

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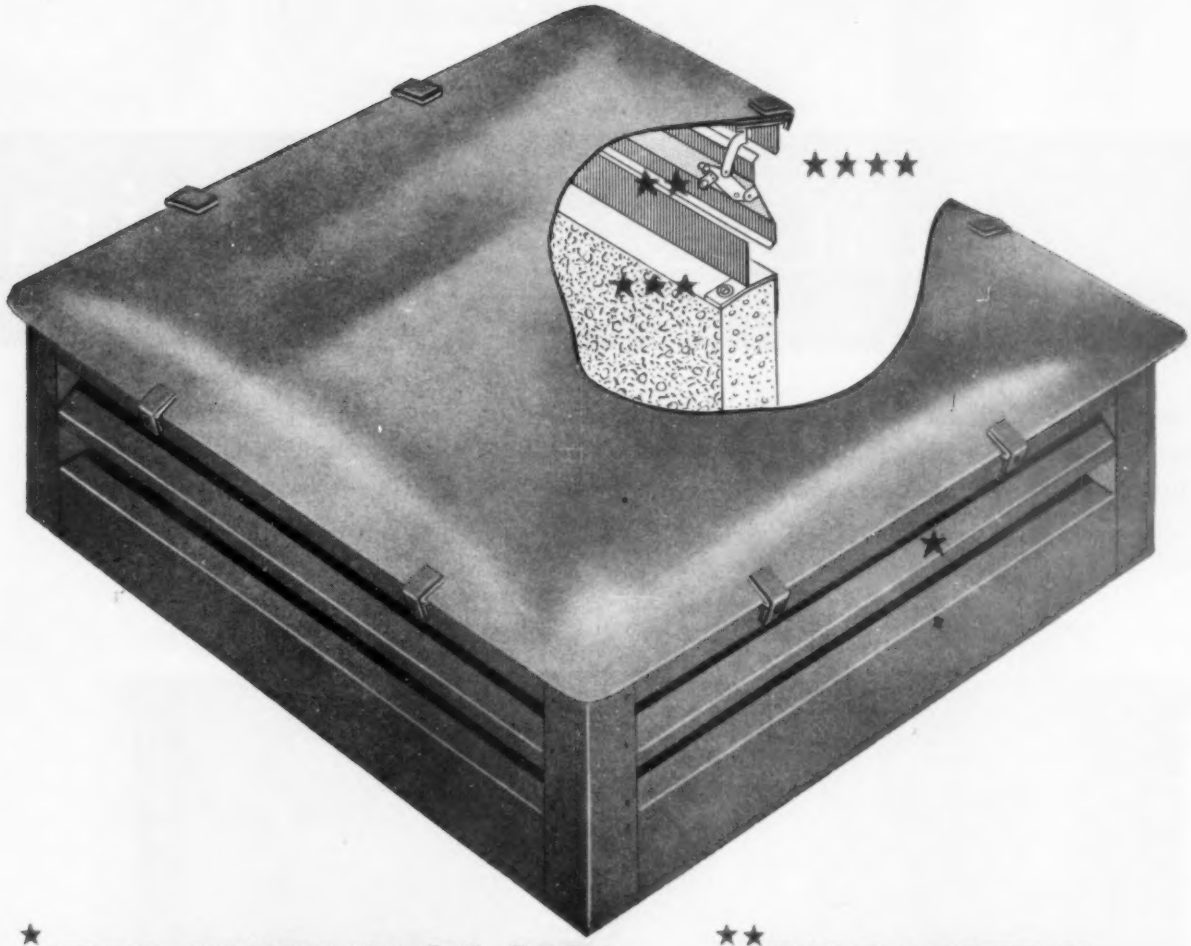

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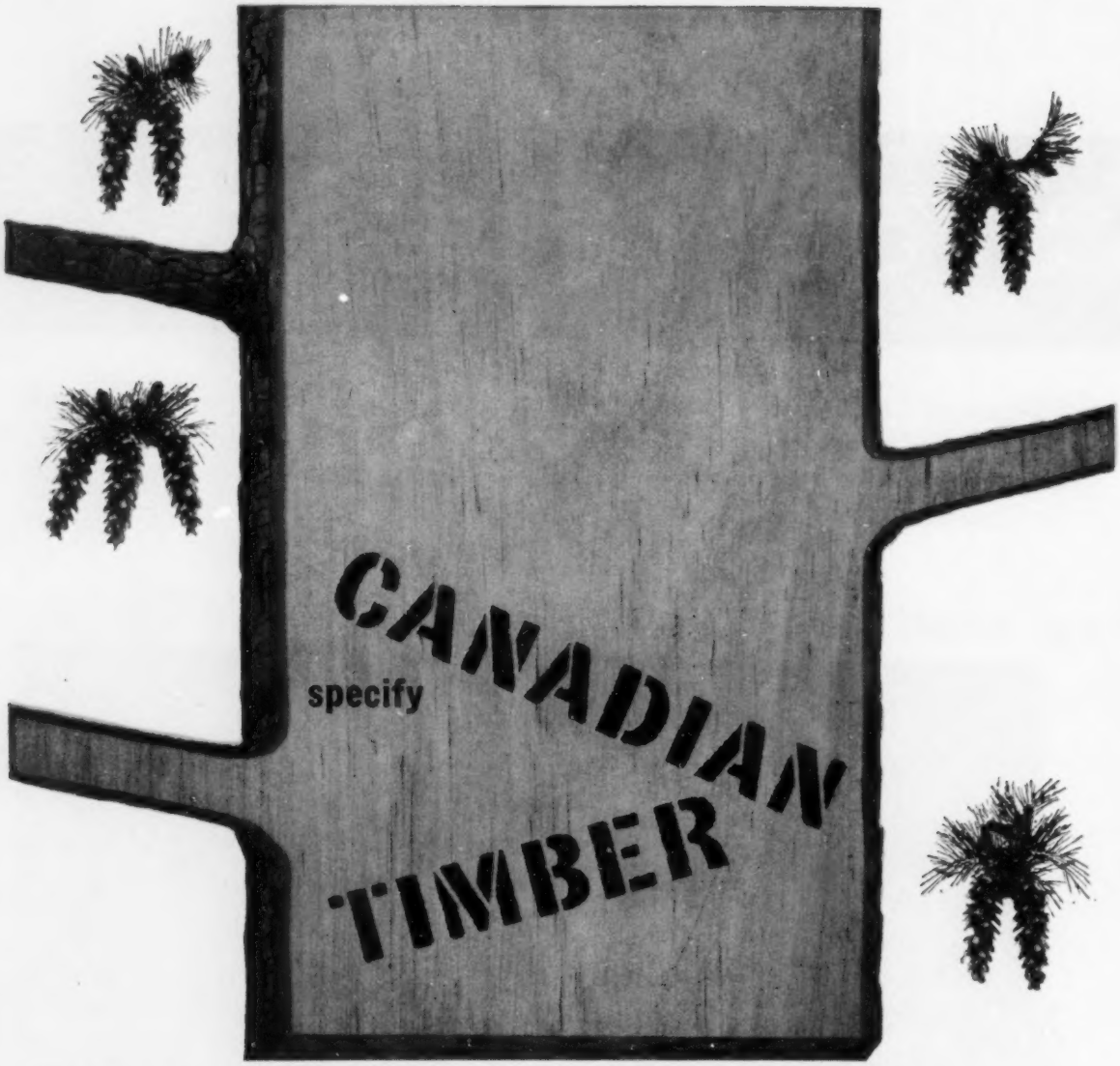

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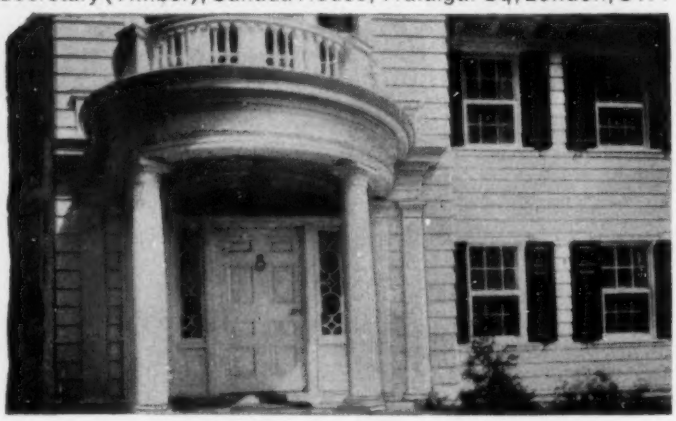

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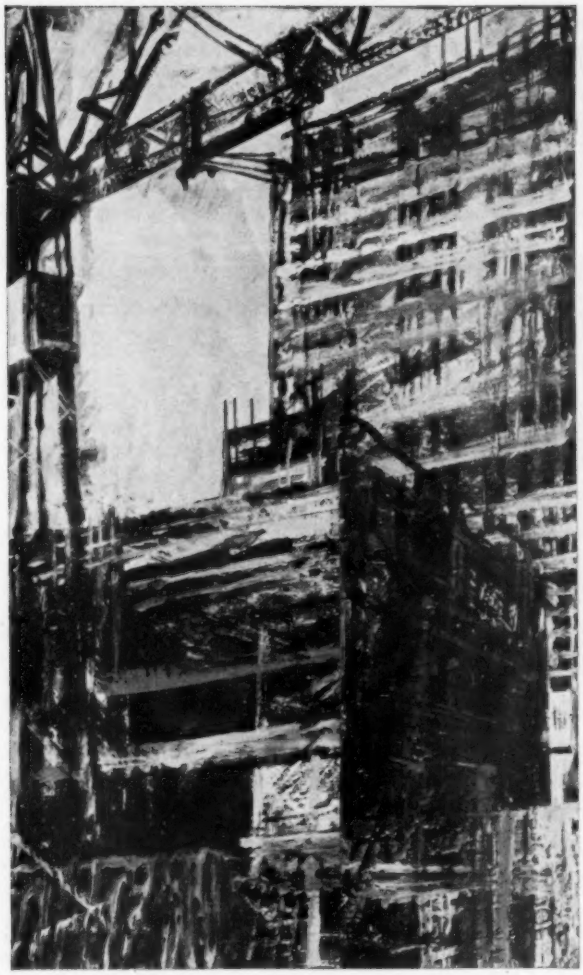

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AJ

The Architects' Journal

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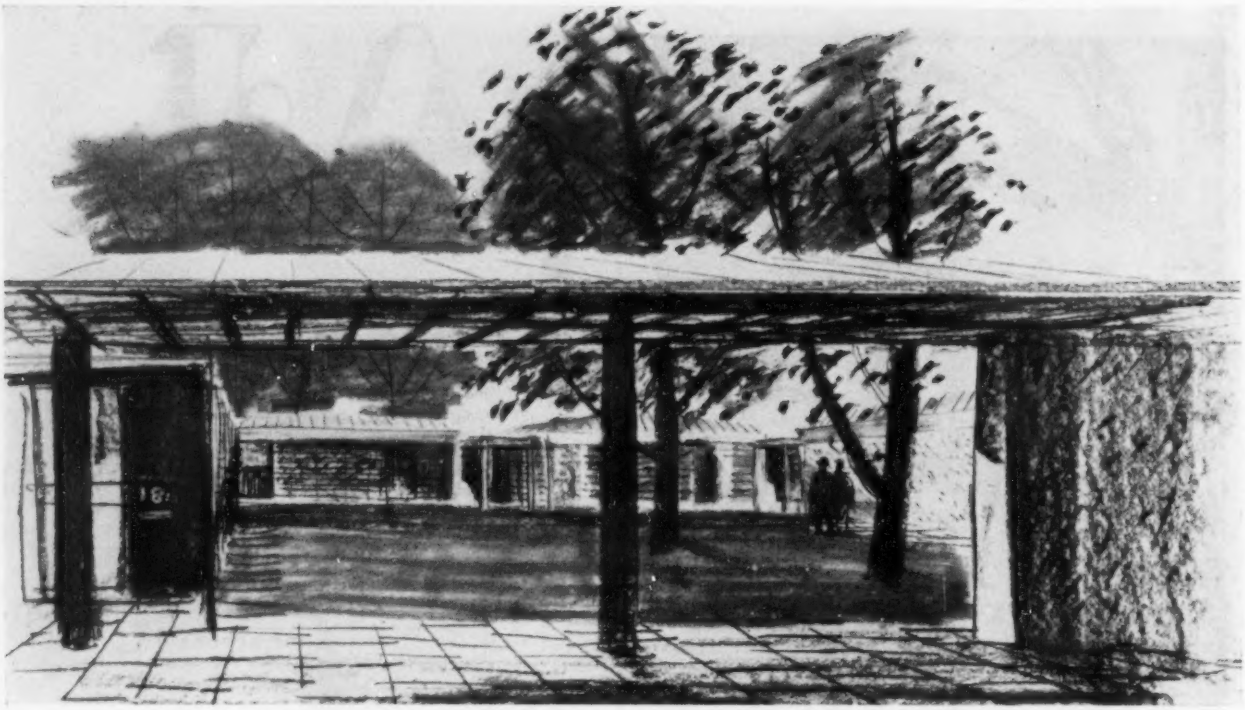
NOT QUITE ARCHITECTURE

Title-Styling Kit for Lecture Secretaries

Attention is drawn to an important breakthrough in methods of titling both individual lectures and complete series, achieved by a team at Columbia University, New York (USA), under Charles R. Colbert, Dean of the School of Architecture.

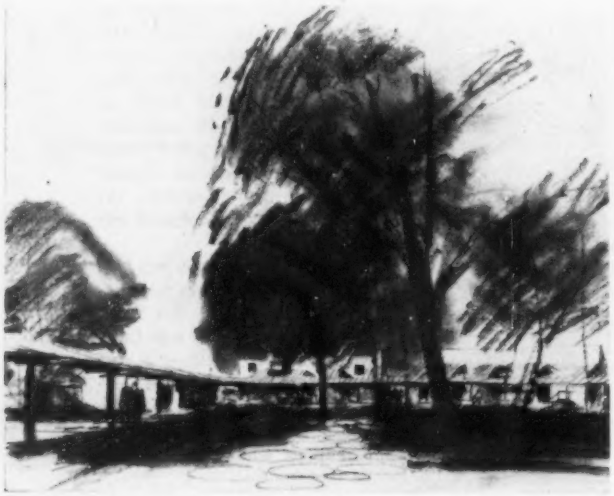
Hitherto, lecture-titles have been directly informative, e.g., *Satanic Themes in the earlier Novels of Jane Austen*, or deliberately confusing, e.g., *Look Back in Bangor*. Both are tradition-bound forms deriving from the period before the rise of the Modern Movement in lecturing. Pioneer work was done at the Institute of Contemporary Arts from time to time, where lectures have been called "seminars"—a useful innovation—and a type of title has been evolved which might be described as an *anti-title*, since it is really the lecture, e.g., *Image of Tomorrow: "On a Planet with You." Tomorrow as Sociology, Science Fiction from Moon Dome 1 to Okie Cities, with notes on Galactic Gothic, Venus as Walden, psycho-history and the exploding metropolis, the Boiler House in Highcliff Drive, automation for consumer design, urban infra-structure, Neo-Platonism, the hard-edge syndrome and the anticipated creation of a leisure culture.*

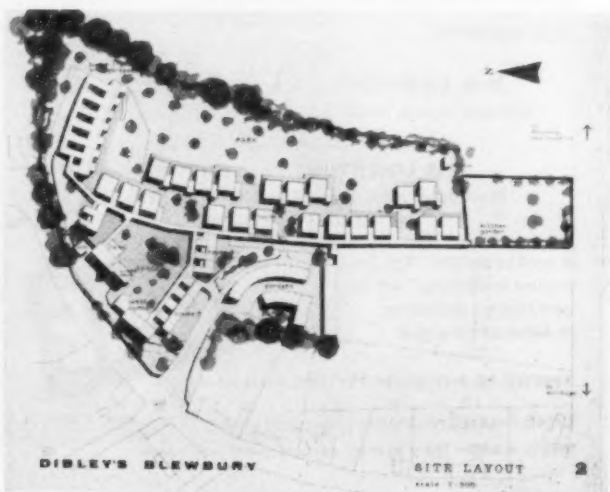
However, the frivolity of this approach will not recommend itself to serious lecture-secretaries, who will recall that this is an age of functionalism, and that the sole function of a lecture-title is to pack in paying customers. Here, the triumph of Dean Colbert's team appears to be complete, and the functionalism of their methods will be immediately apparent on studying the titling



Old People's Housing in a Berkshire Village

This project for a compact group of single-storey houses, largely for old people, in the 5½-acre grounds of a fine old house at Blewbury, is designed by Tom Hancock for Townmaker Ltd., and has just been approved by the Minister of Housing after an appeal against refusal of planning permission by Wantage RDC, which called it " institutional . . . having communal facilities and an unconventional design and layout." HM Inspector Harry Steward found " the planning authority's case contains misconception and prejudice " and described the scheme as " timely, imaginative and lively." It comprises 26 one-storey houses for old people, 11 small family houses, a small guest block, and group of 34 garages: the old house, Dibley's, will provide communal facilities, including a dining room and launderette. A non-profit making Housing Association is to build the scheme. Above, perspective sketch of some of the old people's houses with linking covered way. Below, the proposed site layout, which is to be slightly modified.





of the architectural "talkathon" currently proceeding at Columbia. The overall title is *THE FOUR GREAT MAKERS and the next phase in architecture: a programme in celebration of the great founders of contemporary architecture, a call for critical re-examination of the central issues facing us today, a plea for a new formulation of principles and perspectives of the future.*

The programme is then divided into eight "Cycles" (a word which marks an obvious advance on "seminar") of lectures, whose individual titles cannot fail to excite admiration. Space does not permit more than a sample to be given here, but from these the compositional method will at once become clear (it is hoped to publish some of the more striking working details before next season begins). From Cycle One, we select *Avant-Gardes True and False: Cul-de-Sac or Open end?* Henry-Russell Hitchcock, Smith College. From Cycle Three *Mies' Platonic Palaces: Habitat for American Cosmopolites* (speaker to be announced). From Cycle Four *The Cityshape after Mies: Cartesian or Humane?* Professor Reginald Malcomsen, Illinois Institute of Technology, Chicago. Cycle Five *Mies' Elegance: Feasible Formula for the Future?* Howard Dearstyne, Architect, Chicago; Cycle Six *Modern Architecture, Modern Art and the Doctrine of Less is More* (speaker to be announced) and from Cycle Seven *The Pluperfect Surface and the God-given Joint* Peter Blake, Architect and Associate Editor, Architectural Forum. Each Cycle also contains a convocation in honour of one of the Makers e.g., Le Corbusier, Mies van der Rohe, Gropius and Frank Lloyd Wright (absent) held in such places as the Ferris Booth Auditorium and the Low Rotunda, and the series finishes with a dinner in honour of all four (three) of them with a discourse. *The Architect and the Intellectual Aspirations of his Day* Dr. Jacques Barzun, Dean of Faculties and Provost, Columbia University. Armed with this admirable exemplar, and with a supply of colons and question marks, lecture-secretaries should be able to effect an immediate improvement in their work in this field. Some suggested adaptations to British Usage are given below.

THE FIVE PROGENITORS a matrix of briefings to honour the founders of Modern British Architecture: E. Maxwell Fry, Jane Drew, F. R. S. Yorke, Frederick Gibberd and Wells Coates, a call for critical re-examination of the Central School, a plea for a new formulation of Principals in Bedford Square.

Frame One; modulator, Woodbine Trench, Builder, Penge.

Future Indicative: Good Bad, Indignant? A. J. Ayerwick, philosopher, Gower Street.

Quand les Cathedrales seraient Coniques. Gibberd's Catholic Taste, Peter Hammock, verger, St. Paul's-in-the-Round.

Subtopia after Span: Mess is Law? Edric Syon, Tilehanger, Blackheath.

The Venal Architect and the Pluperfect Client: God-given Opportunity? Sir C. P. Snowman, abominator, Nepal.

BILL PIERSON
PETER PRYS

The Editors

ARCHITECTURE TEACHERS' LINK UP

LAST December 1 we published a letter from G. P. W. Taylor proposing that some kind of professional link should be established between the teachers of architecture, by way of an architectural teachers' journal devoted to exchange information about the "stuff" of teaching, to provide a forum for the exchange of ideas and to report on teaching courses and conferences so that the valuable ideas being preached or practised at present in isolated places could more quickly be communicated throughout the architectural schools and their staffs. We published a supporting editorial in the same issue, and offered, until such a specialised journal could be established, to find means of publishing a monthly Educational Supplement to the AJ.

As a result of these exchanges, Mr. Taylor got in touch with teachers in other schools of architecture and a very lively meeting took place last month in London, at which most types of schools were represented and ready support was evident for the idea of a monthly supplement.

It was apparent from the tenor of the meeting that here was a group of people vitally concerned to develop architectural education in the most effective and practical ways, and that the opportunity of forming a system of communication between teachers was welcomed as long overdue.

When one thinks of the alacrity with which people with a common interest in such things as model railways or embroidery get together and form associations to further their knowledge, skill and enjoyment, it seems astonishing that teachers of architecture, performing work of critical importance and responsibility, have not already such a link between themselves. A recent issue of the *Journal of Architectural Education* of the American schools, by the President of the Association of those schools, dealt with the problems of *over*-organisation in that body. It would be difficult to conceive of a greater contrast with the situation here.

It is now up to the AJ, in co-operation with the architectural teachers' panel set up through Mr. Taylor's initiative to work out the details of the Educational Supplement and to begin publication with minimal delay. Letters have already been sent out to all the schools of architecture inviting their co-operation, but the panel would be pleased to hear from any individual willing to contribute material of value.

One thing should perhaps be made clear from the start: the editorial panel set up at last month's meeting does not start from any agreed policy for architectural education, and certainly the JOURNAL has no wish to "plug a line" for any particular educational policy. What members of the panel do share is an attitude of mind which seeks to relate architectural education to the myriad developments implicit in a society of the latter half of the 20th century: what the JOURNAL can offer is a place for discussion, a link, by means of which those who care most about making architectural education more effective, can exchange ideas and criticisms.

SKIDMORE OR LESS

Whether you like it or not, and ASTRAGAL does/doesn't (please delete word that annoys you least) the Yamasaki style of architecture—i.e., structure used as decoration—is on the way IN in this country. For a first (and I didn't say *the* first) glimpse of it turn to page 519 and gape at the enlightenment of Birds Eye Food Ltd., who have not only decentralised themselves to Walton-on-Thames (handy for airports and for commuting in reverse), but have also acquired a handsome, well-landscaped office headquarters. The landscaping is by Philip Hicks (who did Sandersons' patio) and the architecting by Sir John Burnet, Tait and Partners. Gordon Tait has been quoted as saying his building has a " slick American sophistication and a refinement of style." It's the word " slick " that is most significant. Now that Birds Eye are having this Transatlantic Look, everyone will be wanting it—just as everyone has been clamouring for it in Detroit.

*

I know it is fashionable to sneer about Reinforced Venetian Gothic; but don't forget that the sneers are also imported from the USA where critics have had time to grow tired of structural ornament. Don't let us get blasé about something we've hardly got off the ground in this country yet. Heaven knows, there can't be many clients who have even agreed to use air conditioning over here. (Just go to that slab of high Paddington on a warmish spring day and watch the effect of an east wind and a west sunset. I wouldn't be surprised if some Mums take their daughters away from the place because of the things that pressure differentials do to their skirts.) But once air conditioning *is* IN, then we'll be well away—as Mr. Tait is also quoted as saying—with more interesting interior planning and some freeer (well, how do *you* spell it?) façades.

*

Any day now air conditioning will be something the developer has to offer after knocking down a block of " obsolescent " offices. In fact, Gordon Tait himself has just completed a scheme in Victoria for a speculative client who asked for this oldish-fangled device for keeping out dirt, draughts and noise. And he tells me he knows of one rented block of offices where staff is constantly moving from firms in the unconditioned section to those in the air-conditioned part of the building. So.

MORE BUILDING NATTERS

Charles Crighton closed the last programme in the present series of " Building Matters " (BBC Network Three) by telling us he knew it was heard by people not in the industry. That presumably is why he ended with the moral tale about a Clerk of Works with a touchingly beautiful outlook on life who said something or other upon which, if I got Mr. Crichton accurately, none of us in the industry could improve. What it was I cannot now remember. But I can remember thinking that this summing up of the series, by Messrs. Goulden (Contran), Mills (Edward) and Pearce (Ken), would shake the layman's faith in trusting anyone to give him a building. I quote here at random — with the most exquisitely out-of-context cunning: —

*

" Some architects are so busy organising their offices that they forget the architecture."

" Builders too often arrive on a site and just feel their way through a job instead of planning it."

" Beautiful architectural drawings are used for standing the tea on in foremen's offices."

" Clients usually want their jobs done far too soon."

" The building team is like a football team: it never knows what goal it has in view."

" If you get a badly-organised builder you often get good craftsmanship."

*

And so on. We heard about the architect as team leader and the possibility of his doing a better job after better education (joint training, sandwich courses, etc.). We heard about the difficulties of getting information in standardised form (Mr. Mills wanted his on post cards, just to be difficult). We heard the theory that working drawings were too complex. We heard it all. And as with so many discussion programmes, no one really said anything. I have always preferred the one-man talk—however wrong and however arrogant: at least there is a chance for one man to say something well-reasoned. When and if " Building Matters " returns, could we have a few long pieces instead of so many minds rubbing damply against each other?

TRAFFIC JAMMING

A " traffic-jam " demonstration to draw public attention to the lack of a proper road plan for London is soon to be staged in Finchley Road by the New Hampstead Society. In a new indictment of the LCC's plan to widen Finchley Road into a six-line highway from Swiss Cottage to Hendon Way, the Society say it will be bad for motorists, pedestrians, shoppers, residents, shops, businesses and for the whole of the borough. The higway wil be of substandard width—only 10-ft. lanes—dangerous and noisy, and Finchley Road will be turned into " a waste of concrete, tarmac and petrol fumes."

TRADE LITERATURE

There are several fascinating architectural competitions open at the present time but one non-architectural competition could have, indirectly, a greater influence on the profession and the industry than any. The reference, of course, is to the Barbour Index competition for the design of technical literature (closing date, April 28). ASTRAGAL recklessly offers a modest prize himself to anyone who can show conclusively a winner that improves upon the AJ Information Sheets, but will gladly pay up if he is proved wrong because advance in this field is

badly needed. This competition is a welcome means of focusing attention on the problem, and should show results in subsequent RIBA/BC trade competitions—provided, that is, that the profession is on its mettle.

CAPITAL PROGRESS

Furious (but cosy) arguments on planning and architecture were once confined largely to the inhabitants of the home counties, but the habit is catching and spreading. Belfast, so long asleep after a brief flutter of wakefulness in '51, is due shortly to have an exhibition on urban renewal organized by local architects. This follows some lively correspondence in the *Belfast Telegraph* on a local traffic problem (a new Lagan bridge) and a reported refusal of the Belfast Corporation Improvement Committee to meet representatives of the Royal Society of Ulster Architects ("only ordinary architects" said an Alderman) who wanted to hear what plans were being made for the future development of the city. Presumably that innocent question was precisely the cause of the trouble—plans? What plans? Well, perhaps Robert Matthews' report will answer everything.

*

In another capital, Cardiff, more people can't leave well alone. The Welsh School of Architecture in the best revolutionary tradition (staff, this time) have organised a series of talks on city centres to a rapidly growing audience. Ginsburg, Buchanan, Percy Johnson-Marshall, Smigielski and Ling have reviewed the problem and on April 18 Edward Roberts the city surveyor is going to show how Cardiff is to answer it. Another local newspaper, the *Western Mail*, has realised the importance of planning news and has given plenty of publicity to the lectures, which is perhaps just as well, because local councillors have not always attended, although the Mayor, Dorothy Lewis, was quick to repudiate Ginsburg's charge that Cardiff was simply a mess! ". . . I shall continue to regard (it) as 'the city beautiful'" was her telling rejoinder.

FORCE DE TOURISTS

And for further evidence of the distance the preservationist-planners' protective arm is reaching, read the April issue of the *Architectural Review* where I. de Wolfe describes and illustrates (splendidly) the remote and beautiful Italian lake Bolsena which the locals want to encircle with a road to attract the prosperity-bringing tourist; and thereby destroy the lake's attraction. Fortunately I. de Wolfe proposes a way of reconciling the different needs, but whether in time to prevent disaster we have yet to see. It is a far cry from the Solent to Bolsena and from tourists to turbines, but the principles and the lessons are the same.

Robert Maguire's attempts to give liturgical planning a convincing architectural form got a stormy reception, but his views on top lighting and glazed lanterns have prevailed. The Church of the Holy Rood, Folly Bridge, Oxford, above, is the first of the Sons of St. Paul's, Bow Common in that respect, if in no other.

TEACUP IN STORM

A rare note of stern resolution was struck last week by the President of the London Master Builders' Association, R. F. Mansell, when he appealed to his members "to set an example of that loyalty to each other, to the industry and to your trade association" by standing firm on the matter of paid tea breaks for building workers in October, when the new wage rates come in.

*

"In October, 1961," he said, "we employers shall have presented to us a chance the like of which we have not had for 30 years, to take control of our industry, to exert leadership, to indicate to our operatives that while we work happily with them ours is the responsibility, the risk and the duty of running our own businesses." The temptation to offer paid tea breaks —especially to skilled craftsmen, Mr. Mansell admitted, would be great: "I can only say to you that if you now want to once again be masters in your own house, you must not fall prey to the temptations that beset you."

*

Why, do you suppose, a master in his own house shouldn't offer a cup of tea, or anything else, to the serfs and artisans doing his bidding. Anyhow, as I have tea breaks, Mr. Mansell (I expect) has tea breaks, and everybody in the AJ office has tea breaks, I don't quite get the backs-to-the-wall spirit of this campaign. Surely even Dr. Beeching will get tea breaks when he goes to the British Transport Commission: after all, it's a sacred British custom.

ROOM FOR IMPROVEMENT

The discussion meeting last week at the RIBA on Development Groups was hampered by its setting—the Henry Jarvis Hall. Because of the size of the audience the hall had to be used, but the way in which speakers and others were set out, like so many birds on a perch, was unlikely to produce a free-for-all among them. The room could do with a face-lift. But couldn't there be some new, flexible arrangement for this type of meeting to discuss an internal matter within the profession?

*

One of the barriers to making such alterations is, it seems, that despite all the other reforms and improvements made to the administration of the Institute, there is still no way it can talk coherently, sensibly, and with one voice to any architect it commissions for alterations and improvements. Action please, somebody.

ASTRAGAL

LETTERS

Professor Sir William Holford,
M.A., F.R.I.B.A., P.P.T.P.I., F.I.L.A.
Peter Jay,
M.A.
Russell Diplock Associates
Paul Ritter,
M.C.D., B.Arch., A.R.I.B.A., A.M.T.P.I.
W. G. Howell,
M.A.(Cantab.), A.A.Dip.(Hons.), A.R.I.B.A.
Edward Craven,
A.R.I.B.A., A.M.T.P.I.
Hon. Secretary, Nottingham, Derby & Lincoln Society of Architects

The New Piccadilly

SIR: I was most interested to read Mr. Blachnicki's comments on the new Piccadilly, published in THE ARCHITECTS' JOURNAL on March 9 and I share with him the belief that ideally pedestrian and vehicular traffic must be totally segregated; but I am afraid I part company with him over the way he thinks it ought to be done in the new Piccadilly Circus, as indicated on his diagrammatic sketch.

It may well be that the new Piccadilly will provide a test case for the comprehensive redevelopment of prosperous, central urban sites, but the very conditions applying to this particular area make it most unlikely that it can provide a text-book solution to the total segregation of pedestrian and vehicle as well.

The new Piccadilly has to combine the historical street (e.g. Waterloo Place/Lower Regent Street) and the prosperous ground level shopping street (e.g. Regent Street) with the future higher level redevelopment of Soho. In other words, it will provide the "door step" up into a higher redeveloped Soho where pedestrian and vehicle are segregated, from an area where, at present, they are not. With pedestrians needing to be at all three levels (the underground concourse, the ground level and the upper level) any complete form of segregation is at the present time impossible, and some form of compromise inevitable.

Given this compromise, I can think of few more unpleasant ways of tackling it than that shown by Mr. Blachnicki. To run 55 ft. wide major roads over what is in effect a "bear pit," with the vehicles dominating the whole pedestrian scene is alarming. Apart from the overpowering scale of engineering design such roadways would require, and the cavernous gloom it would create below them, the noise, dirt and accumulation of diesel fumes would be such as to render the lower level virtually uninhabitable. In Mr. Blachnicki's own words "the pedestrian deserves a better fate."

WILLIAM HOLFORD

High Flats

SIR: With reference to the Cost Comment on the High Flats at New Southgate (AJ, 23.3.61), it is quite true that the cost of electrical services in a tall block of flats will be much higher than in, for instance, individual houses or relatively small blocks of flats not more than two or three storeys high.

There are two basic reasons for this and neither can be controlled in any way by those responsible for the design of the building and its services.

In the first place, the Electricity Boards bring the main supply to a housing estate at their own expense, and charge only the small cost of the service cable from the main into each dwelling. Even this charge is sometimes omitted when there is provision for electric cooking and water heating. On the other hand, in a block of flats the cost of rising mains up the building is part of the building budget, and the cost increases steeply with the height of the building.

Secondly, it is customary to carry out the electrical installation in low cost housing in some relatively cheap material such as t.r.s. or P.V.C. insulated and sheathed cables. It is not possible to use these types of cable in flats by the very nature of their construction, and the necessity for being able to repair a fault in one flat without disturbing other tenants. More expensive systems such as conduit or m.i.c.c. cables have to be used instead.

For the reasons explained above, the cost of the electrical installation in a point block often appears to be unduly high and efforts are made to reduce the cost by the only method a non-engineer can understand—that is, to reduce the facilities provided by omitting socket outlets and airing cupboard heaters, etc. In view of the report on the need for socket outlets in low cost dwellings published last year (AJ, 2.6.60), I question whether this is altogether wise. So far as I remember, you did as well.

PETER JAY

London, W.1

Running a Job

SIR: It is unnecessary for us to say how welcome the new series on "Running a Job" in the JOURNAL will be, and its presentation in successive issues, rather than a single one, will probably make it more easily read and digested. Before even reading it, however, we were struck by the rather strange layout and we are not speaking aesthetically, but functionally.

First of all it is understood that the AJ is oversize A4 to allow for trimming at the binding edge, and that it is designed for filing (which in practice means securing the sheets at the bending edge by clip or file).

The binding margins left on pages 444 and 446 are quite inadequate for any form of filing and we would be pleased if you could arrange for these to be increased in future issues to avoid what we hope will be a most helpful handbook becoming a source of continuous frustration in use.

As you will be aware, the files in most common use secure the sheets firmly at one side and do not open flat, the curve of the papers forming an additional obstruction to vision at the margin. This is a further important reason why *all* your binding margins should be increased.

RUSSELL DIPLOCK ASSOCIATES

London, S.W.1

The Editors reply: We propose to take up this helpful suggestion.

Architecture on TV

SIR: If Reyner Banham cannot really persuade me that his profession alone is literate, neither can Malcolm MacEwen convince me that the TV authorities are the only ones afraid to spend money on the publicity of architecture.

I may not have appeared effective in any of my half-dozen appearances but when Associated Rediffusion was interested in a programme on my International Traffic Segregation Exhibition there seemed no money at the RIBA to ensure that some plans and some of the photos would be of the "highest quality," if it accepted the offer of a *free* loan of the material; I live in hope.

PAUL RITTER

Nottingham

Better Literature

SIR: In the course of making appreciative noises about the new RIBA typography, Astragal mentioned that credit for this was due to the Public Relations Department which he follows with an explanatory bracket containing the names of Bill Howell and Herbert Spencer. All the credit for the design work is indeed Herbert Spencer's, in his role as consultant typographer to the Institute—he is not, of course, on the staff of the Public Relations Department.

As far as I am concerned I am merely the chairman of the Committee which makes decisions about these matters and causes the already overworked Public Relations Department a lot of extra work. All the detailed work has been done by the Typographical Sub-Committee under John Broome, with Jill Thompson of the Public Relations Department as secretary. It is she who has co-ordinated this very complicated operation, and she arranged and mounted the exhibition now on show in the RIBA.

W. G. HOWELL

London, W.1

Lincoln Inquiry

SIR: On behalf of the Lincoln Branch I should like to thank you for your report on our activities on March 9. However, there is one inaccuracy which I should be glad if you would correct. Although planning is carried out entirely by the City Engineer, who is also planning officer, the City has had a separate architectural department and its own chief officer for some years.

The City Architect informs me that Mr. P. F. Burridge, F.R.I.B.A., was appointed Housing Architect in 1947. Due to his excellent work, he was appointed City Architect in 1950 and held this office until his departure for Southend-on-Sea in 1951. The present holder of the post is Mr. R. R. Alexander, DIP.ARCH.(ABDN.), F.R.I.B.A., M.T.P.I., who has been City Architect since that date.

EDWARD CRAVEN

Lincoln

NEWS

CONSERVATIVES CONFER

Higher Density & Balanced Development

It was both comic and encouraging to attend the annual meeting of the Conservative Central Council at Church House, Westminster on March 24, and to find the delegates devoting themselves to a discussion of planning problems which could have taken place at a Fabian Summer School. We are all planners now, it seems—and high time, too.

A Conservative research paper entitled "Thick on the Ground," describing the need for higher density housing, to be achieved by more two and three storey maisonettes, more infilling and readier acceptance of tall buildings was the basis of the discussion, introduced by Henry Brooke.

The Minister of Housing pointed out that even today only one-tenth of England and Wales is built over, and that open land is being acquired for development at the rate of 30,000 acres a year, compared with the surprising figure of over 50,000 acres in the periods 1934-5 and 1938-9. This, he concluded, was evidence of improved planning effectiveness since no one would deny that building is now taking place at a higher rate.

Subsequent speakers did not quite share his enthusiasm for the effectiveness of planning today. David Mitchell, of St. Pancras Conservative Association, for instance drew attention to the imbalance of development in the centres of our cities, and echoed the Bow Group pamphlet, "Let Our Cities Live" when he condemned the speculative office blocks going up in central London, which increases its capacity for clerical workers by 15,000 places annually.

The increasing discomforts of commuting were raised—it was claimed that the number of passengers on commuter trains, despite the fact that there are more trains, has reached a point dangerous to older people—and it was suggested that this discomfort, plus the high fares and the cost of mortgages in the suburbs might well make many people willing to move back to live in city centres, even at quite high rents. What is lacking is central accommodation for them.

A speaker from Woking described this as "England's classic problem town." A decision by the local council to permit intensive development there within a half-mile radius of the railway station had caused land values to rise by 500 per cent, he said. The result would be high profit for the fortunate landowners and high cost for the ratepayers. Yet the Council was unable to make such policy decisions secretly and reluctant to use compulsory purchase orders. (At this point a Fabian meeting would probably have talked about Comp and Bet.)

The Minister summed up by saying the power of London borough councils over density regulations was under review by a committee and its findings were not yet available for him to comment on, and he warned that the desirability of high density must not be allowed to outweigh the need for privacy, since the latter was vital to personality. On the growth of new office space in the centre of London, he said he had written to 200 large scale employers of office workers urging them to decentralise. But the key problem in redeveloping cities lay in the suburbs, which had been built in the last fifty years at very low densities and could not yet be torn down again. He invited alternative solutions to the problem of increasing their capacity to house people.

RIBA

The Purpose and Organisation of Development Groups

The large numbers present at this discussion, and the wide variety of interests represented—County and Borough architects, administrators, a senior Treasury official and at least one MP—attested to the strong backing the idea of development groups now commands. The main anxiety expressed was whether development lay within the scope of the smaller authorities. Elizabeth Layton, whose "Building by Local Authorities" has just been published, thought not: for full-scale development, the size of staff required was more than they could afford. But Henry Swain, backed by several speakers, maintained that no authority with a programme of £1m. or more, could afford to neglect it. Only 1 per cent of every million invested would pay for development work by one man at £2,000 a year and two at £1,500, plus overheads, and this outlay, Swain believed, would be recouped many times in better value for money over a period of years. Nor did he think that development should be confined solely to public authorities—large private spenders like I.C.I. or Marks & Spencers should see as much profit in this kind of development as a firm like Jaguar saw in its engineering development.

Guy Oddie emphasised the duty of development groups to see ahead, not only in technique, but equally in user requirements. It was important to associate a forward-looking user representative as well as the administrator-patron with the team. David Medd underlined this point by coining the phrase "The Thinker-User" to distinguish the kind of person that was needed to bring imagination and discernment to foreseeing trends. He saw the development team as essentially administrator/thinker-user/architect and Q.S./plus builder-manufacturer. He said every barrier between design and production must be broken down.

Stirrat Johnson-Marshall described competitive tendering as the "sacred cow which got between the architect and the people who make things," and while not rejecting such competition out of hand, pleaded with authority to lend its support to "more adult ways of ensuring that public money was properly spent."

Another barrier, said Medd, was the consultant, and where architects needed other skills to supplement their own they should not seek them from "the man down the street" but go straight to industry itself. Roger Walters's introductory paper alarmed many by the assertion that a development project should take twice the time of an ordinary one. Anthony Port, Chief Architect of the MOE, admitted that a job done properly took longer than a skimped one, but said that development jobs must be tied to a strict timetable and not allowed to run on for ever in search of a perfection they would never attain. Donald Gibson thought that development of some kind should go on in every office, large or small, if it was to offer a worth-while service.

A county architect said he was a member of CLASP and proud though he was, etc., etc., wondered sometimes if CLASP building was "really architecture." Sir William Holford—who held the discussion together with his usual intelligence and aplomb—dropped the guillotine without waiting for an answer to such a silly question.

BC

Materials and Finishes in Modern Hospital Building

On March 9 Lord Cunliffe opened an Exhibition at the Building Centre with the above title. Though nominally devoted to Materials and Finishes, the Exhibition is, in fact, mainly concerned with hospital equipment. There are three mock-up rooms: part of an acute ward (complete with Llewelyn Davies type lighting), a consulting and examination room and a nurse's bed-sitter and, in addition, there are sequences of better-looking-than-average examples of equipment: bedpan washers, surgeons' scrub-up basins and the like. It is a small, well managed Exhibition and worth a visit before it closes this Saturday.

ILA

Education of the Landscape Architect

A Report on the recruitment, training and employment of landscape architects, based on extensive inquiries last year, has just been published by the ILA (price 3s. post free). The inquiry revealed that although landscape work is not highly remunerative, 4 per cent of those who replied to a questionnaire earned £750 to £2,250 a year, 26 per cent came from members with their own practice, local planning authorities employed 30 per cent, and other authorities, such as New Towns, 24 per cent. Clearly public employment has assumed considerable importance for the landscape architect, and this trend is increasing.

Courses in Landscape Architecture are projected at Birmingham, Cheltenham, Dundee, and Edinburgh, mostly as an extension of existing architecture courses.

MOHLG

Population Density 1951

A population density map for 1951 is the latest addition to the series of 1/625,000 (10 miles to the inch) maps published by the MOHLG and although the data on which this map is based are now 10 years old, its publication is important to planners and those concerned with land use since it provides the only general picture available of post-war population distribution. The only other general population density map in this series relates to conditions as they were 30 years ago. So far only one of the two sheets has been published, but this one sheet covers almost the whole of England and Wales and includes all the standard conurbations with the exception of Tyneside.

The map itself shows density of population over the country as a whole in seven classes. These are measured in terms of numbers of persons per unit area—either acres or square miles. The classes chosen are as follows:—

	Persons per sq. mile	Persons per acre
Dense urban	over 25,000	over 39
Urban	6,400–25,000	10–39
Suburban and industrial rural	400–6,400	0·625–10
Dense rural	50–400	0·08–0·625
Sparse rural	25–50	0·04–0·08
Very sparse rural	1–25	0·002–0·04
Virtually uninhabited	0–1	0–0·002

While it is possible to criticise the classes chosen on the grounds that the range within some of them is too wide, these grades at least have the merit of being very nearly the same as those chosen for the Ministry's earlier population density map. This earlier map was based on the 1931 census so direct inter-censal comparisons can be made with the two maps.

In the 1951 map the main urban areas stand out very clearly since the grades of colour chosen produce a sharp distinction between those areas with a density of 400 persons per square mile or more and the rest of the country. The general pattern that emerges is illustrated in diagrammatic form in Fig. 1. This sketch shows the very great dominance of the conurbations and emphasises the position of Greater London as the largest single concentration. It also brings out the shape and disposition of the very heavy concentrations clustered in the relatively small area around the central and southern Pennines. This includes four out of the five provincial conurbations. It shows too that Merseyside and the south-east Lancashire conurbations are now developing almost into one unit and that the West Yorkshire conurbation is only divided off from them by a small strip of uninhabited moorland. The West Midlands conurbation still remains a relatively separate entity. After glancing at this map it is easy to appreciate that in 1951 Greater London and the five other conurbations contained nearly 38 per cent of the total population of England and Wales and that this was concentrated into less than 4 per cent of the total area of the country. Only Tyneside—the smallest of the standard conurbations—is omitted from this diagram.

Apart from the conurbations, four other areas stand out as significant. The long line of industrial towns in the East Midlands from Barnsley through Sheffield, Nottingham and Leicester to Coventry. This group forms the largest concentration outside the conurbations themselves, and the densely populated valleys of industrial South Wales. Smaller in size, but growing in importance, are the Bath/Bristol area and the ribbon of development along the south coast from Hastings through Brighton, Portsmouth and Southampton to Bournemouth. These may well form the nuclei for future concentrations, perhaps of a new and different kind, outside, but closely related to the Metropolitan area.

Outside these major and minor concentrations areas of really high population density appear as small and scattered patches within a wide "rural" zone. This is deceptive, however, for by far the greater proportion of this rural area is quite highly populated. It falls in the "Dense Rural" class with densities of between 50 and 400 persons per square mile.

To the planner one of the most interesting features about this map is that it makes it possible to get some idea of the changes that have taken place in the general distribution of population during the period 1931-51 by comparing this map with the

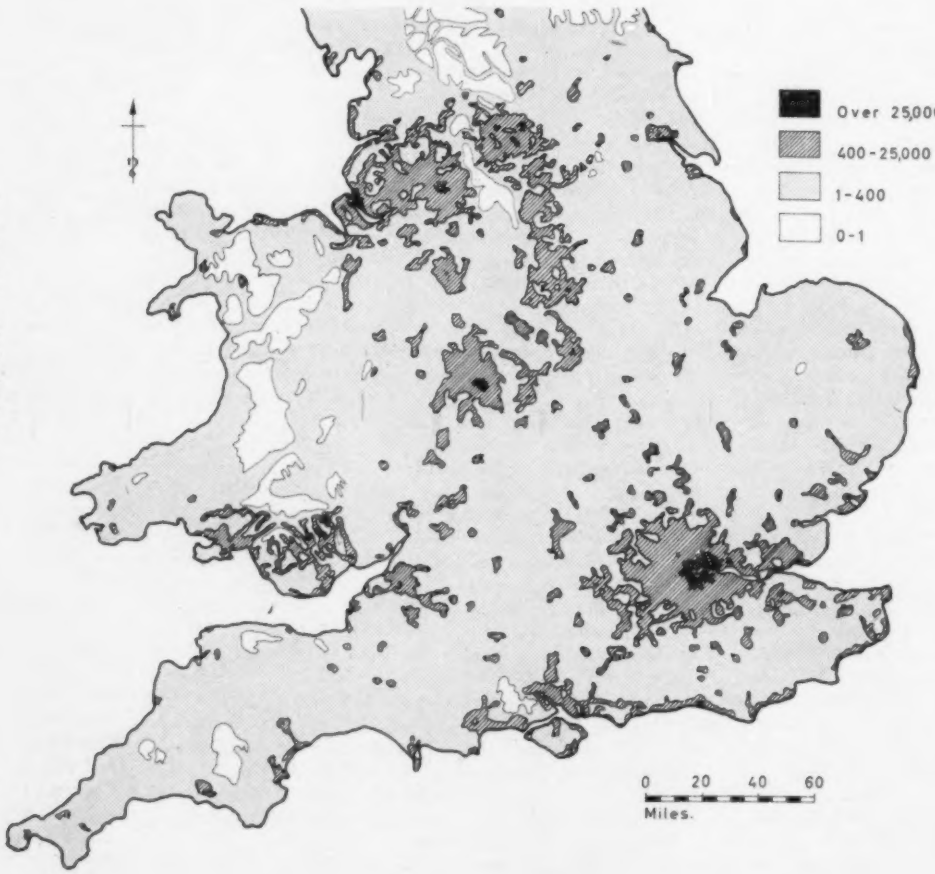


Fig. 1. Population Density in England and Wales, 1951. This diagram, based on the MOHLG population density map, shows the main concentrations of population where the density is 400 persons or more per square mile, and the major cities where the density is over 25,000 persons per square mile. Land almost uninhabited is left white

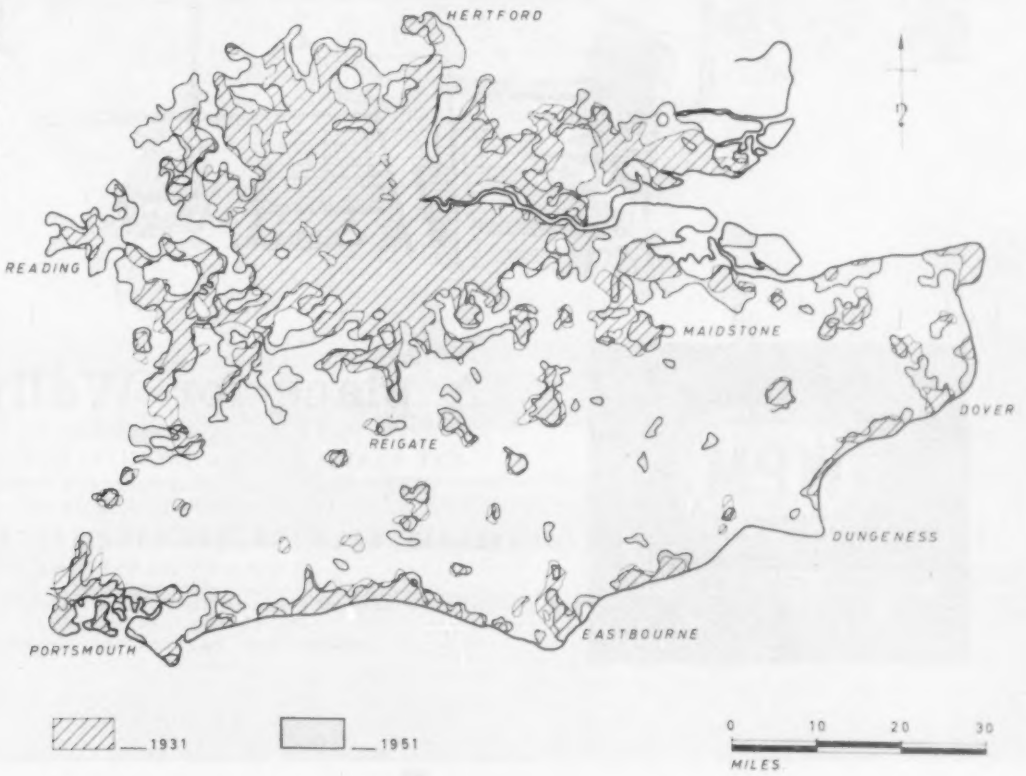
earlier sheets based on the 1931 census. Figs. 2 and 3 attempt to illustrate this point for two very different areas by showing the extent of the zone calculated to contain population at a density of over 400 persons per square mile at the beginning and end of this period. Such maps can only give a general impression of change, but they suggest that even in the conurbation areas the extension of the high density population zone was taking place relatively slowly, and that no basic changes in the national population distribution pattern had yet taken place. It is important not to assume too much from this. A population density map with very wide class ranges is not a sensitive measure of change; moreover the picture we see is already 10 years old. A great deal of development has taken place since 1951 and there have been revolutionary changes in mobility. The data from this year's census will enable whatever trend there is to be read much more clearly.

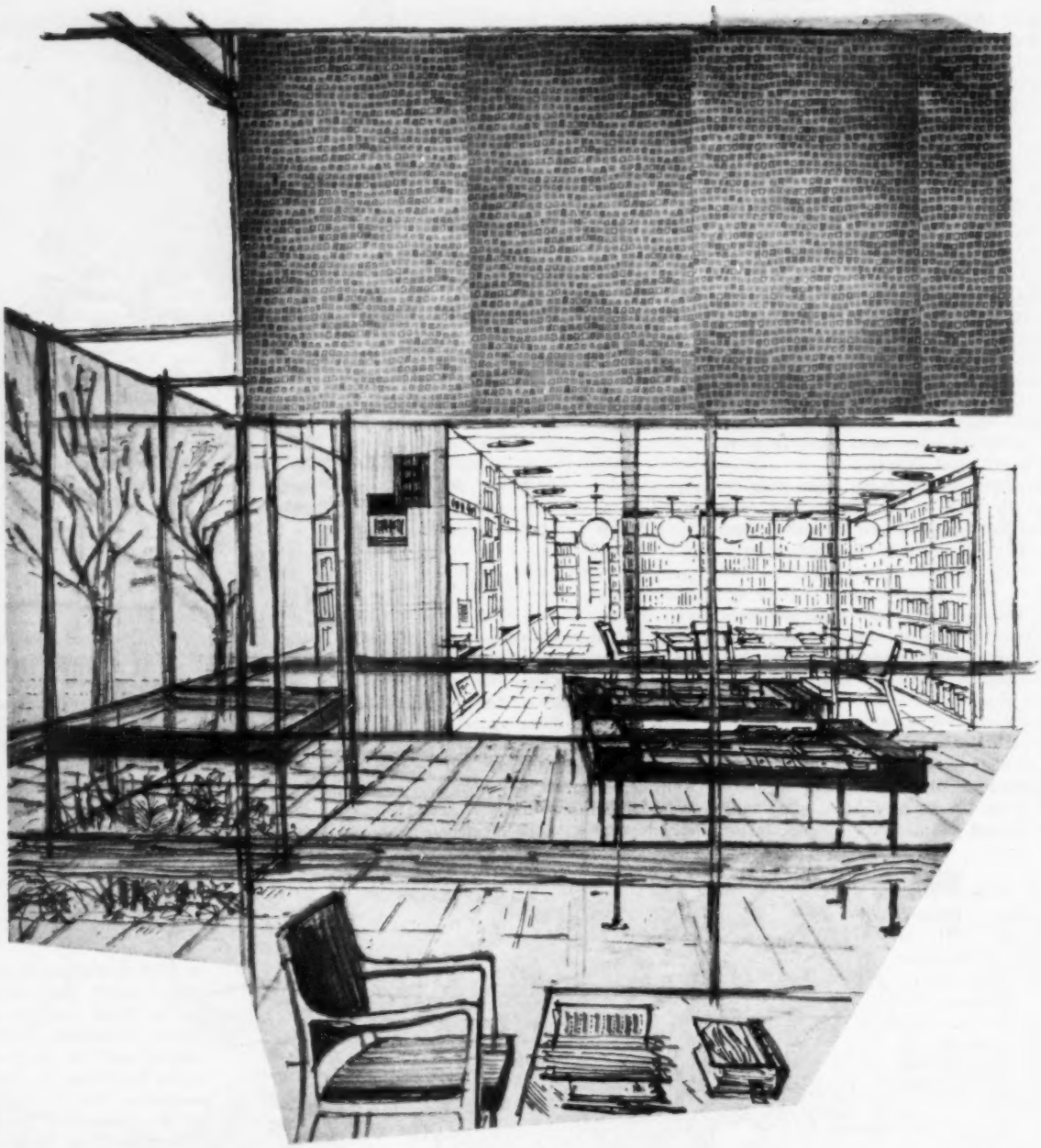
It is unfortunate that the basic data required for such a map (parish and ward populations) only become available once every 10 years and that the actual preparation of the map itself is so laborious and takes so much time. A great deal of detailed work with large-scale maps and plans is necessary before an accurate assessment can be formed of the general pattern. This means that a published map is always several years out of date.

Maps of this kind are more than an academic exercise in urban geography. We need to know as accurately as we can how the population of Great Britain is distributed over the country as a whole and what general changes are in fact taking place in this distribution. Only then can we tell what sort of effects—if any—planning policy is having. The evidence available so far suggests that the change has been slight—at least up to 1951. A new census is to be taken this year. It is to be hoped that the Ministry will produce an equivalent map for 1961 as soon as possible. We may then see what have been the overall effects of a decade of planning controls.

Fig. 2. Areas of High Population Density, 1931 and 1951 in the North-West. This sketch shows the changes that have taken place in the areas with a population density of over 400 persons per square mile. The ruled area shows the extent of the high density area in 1931, the dotted area marks its position in 1951. There has been some expansion and contraction, but the main outline remains much the same, above

Fig. 3. Areas of High Population Density, 1931 and 1951, in London and the South Coast. This gives some indication of the change in the high density area in the Greater London region up to 1951





Drawing by Pamela Guille

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School Extension

Designed by J. M. Austin-Smith and Partners; partner in charge Geoffrey Salmon, assisted by William Jarrett.

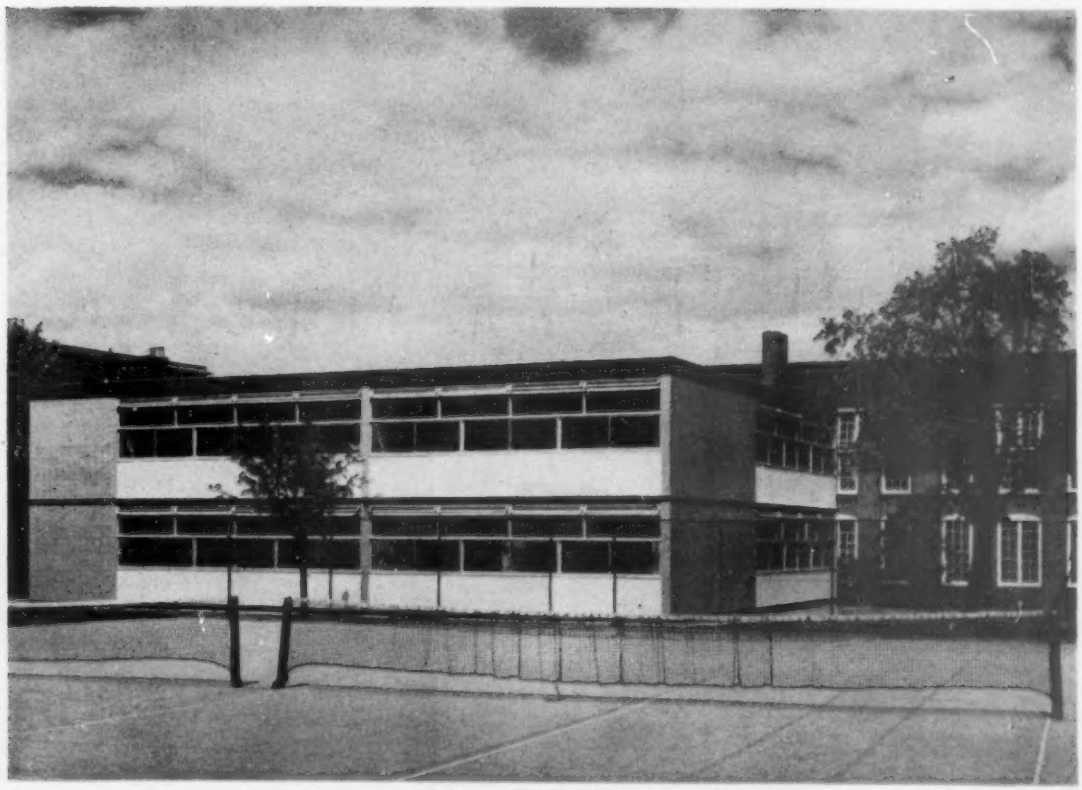
In the current schools programme more attention is now being paid to the improvement and extension of existing buildings. This is in many ways a model example, not least that it has been fitted so happily into the pattern of the existing school and its surroundings, despite a rather awkward site.

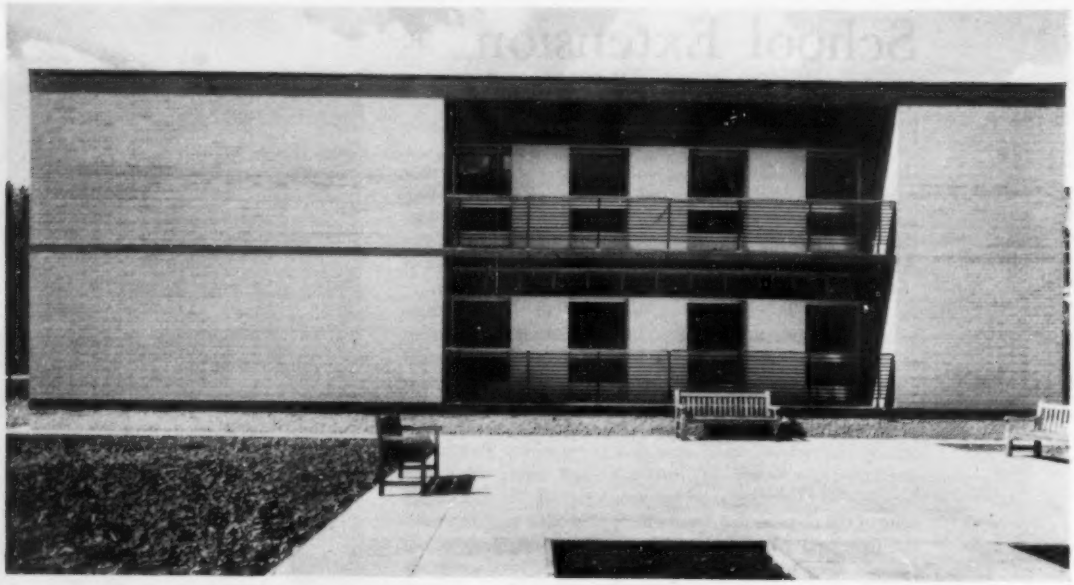
In providing an extension to the John Howard Grammar School for Girls at Hackney, the architects have preferred to design the six additional classrooms in a block quite separate from the existing school. The building is an almost square two-storey block of blue glazed brick, with strip windows over rendered panels. This contrasts sharply with the existing school, which is a long three-storey building of weathered brick and pitched roof. Yet going from one building to the other is in no way a jarring experience. In spite of the obvious differences in construction and materials, the light and pleasant interior of the old building is not entirely alien to the current concept of a school, while the extension achieves a scale in keeping with the old, and ties in well on a rather small site. The new block is sited sufficiently far from the main building to allow there to be a generous planting area and an outside teaching space between the two.

Since the extension is a separate unit, it has been possible

Cloakroom bays open off the ground floor circulation

The block has been built as a separate unit from the existing building behind

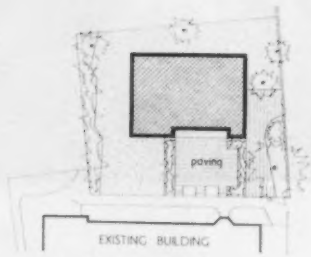




A balcony outside the study rooms on the first floor overlooks the outside teaching area, above

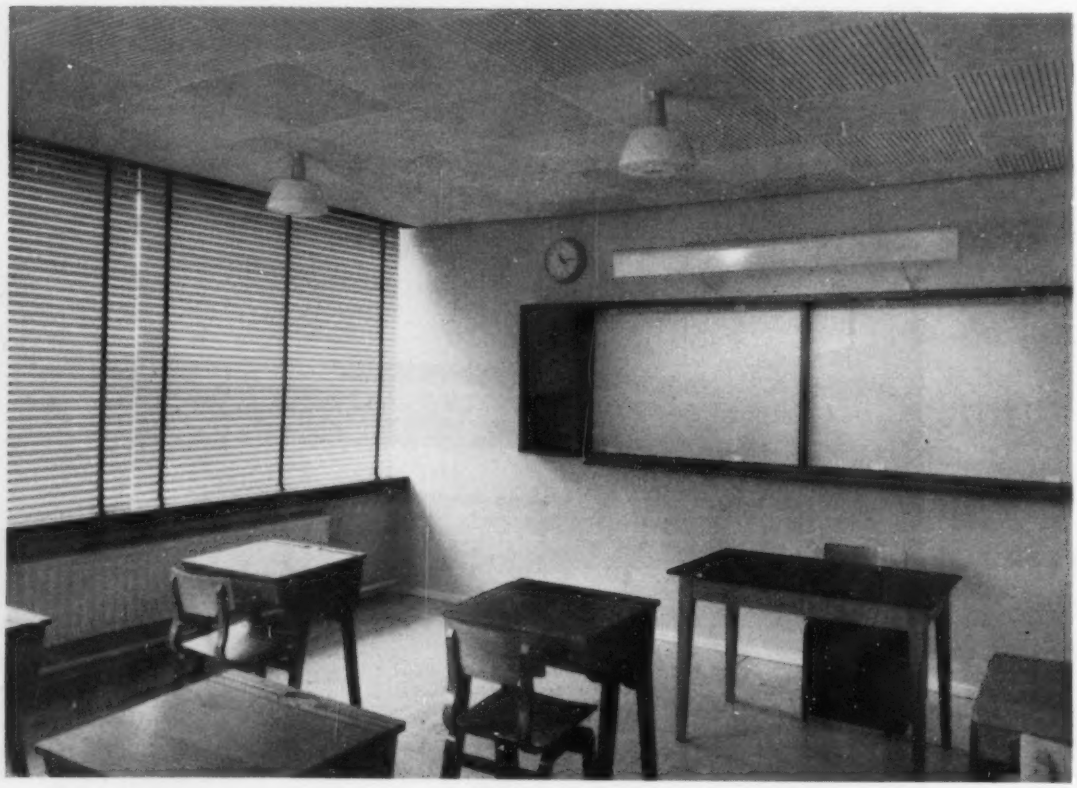
The same design of balustrade as for the balcony is used at the head of the stairs, opposite top

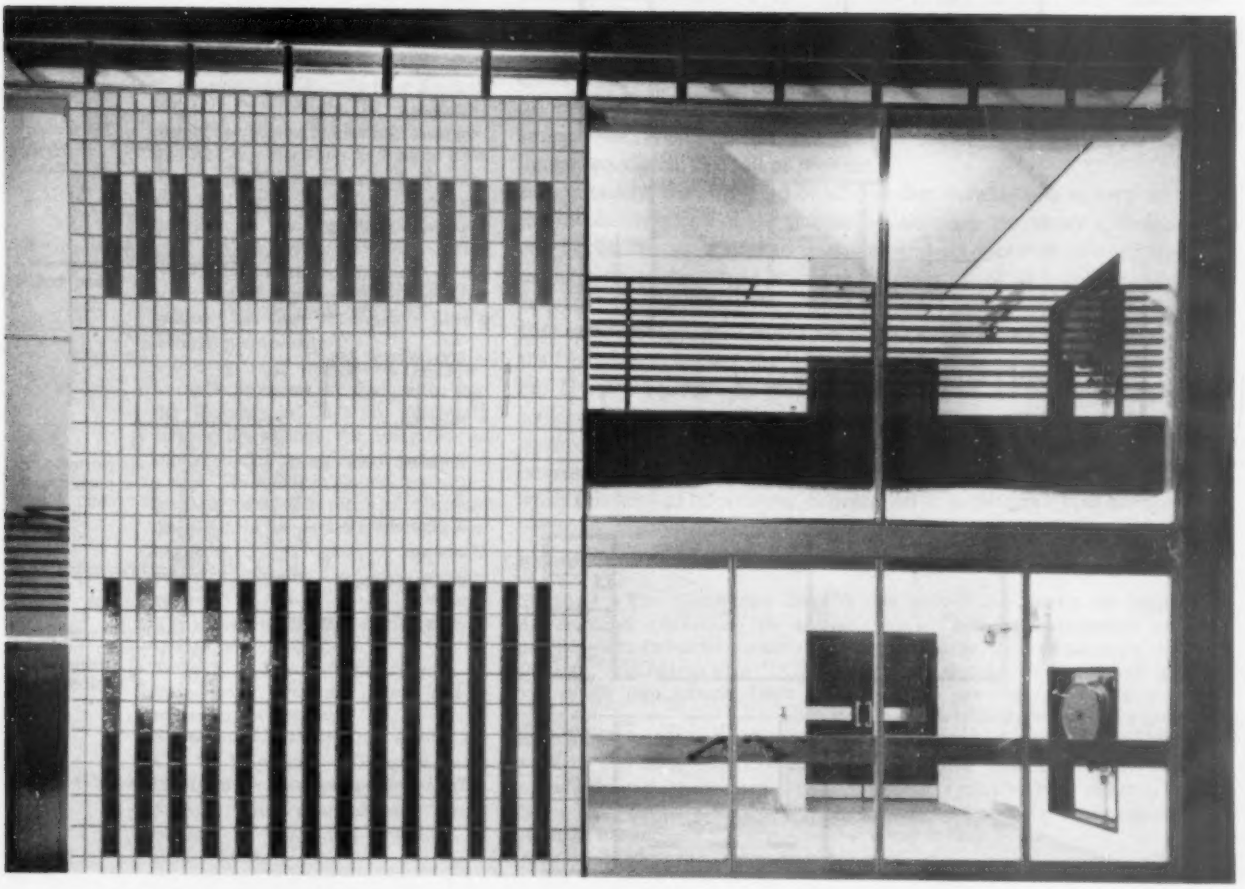
Decorative tiling at the main entrance, opposite bottom



Site plan Scale: $\frac{1}{16}$" = 1' 0"]

Typical classroom interior, below





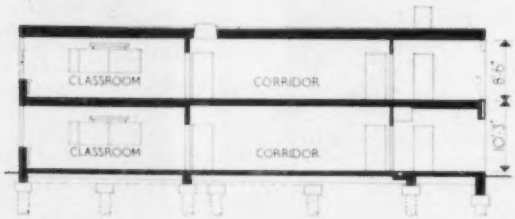
to adopt a compact and efficient plan. This has enabled the architects to achieve an unusually high standard of finishes both internally and externally, aimed at being as maintenance free as possible. The exterior walls are divided into panels designed to read alternately as solid and voids. The solid areas are finished with light blue glazed bricks. The voids on two sides are aluminium windows neatly divided to give sliding, projecting and fixed sashes, with an unbroken panel of white rendering below.

On the garden side there is a recessed balcony with a handsomely detailed balustrade, that gives relief to an otherwise flat facade, and provides a practical amenity to the smaller teaching rooms behind. The floor and roof slabs are expressed externally as black horizontal bands, except at the stairwell, where there is no upper floor. This strictly observed logic of solids and voids, immaculately detailed, is only inconsistent at the entrance where the ground floor slab is masked by paving.

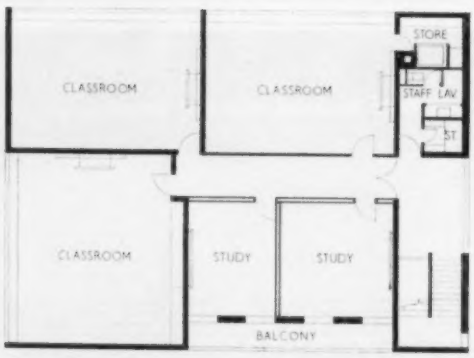
The interior relies on a simplicity of colour and materials. Except where exterior brickwork is carried into the cloakrooms, the walls throughout are white plaster. The floors are black or white marbled p.v.c. tiles, and the acoustically absorbent ceiling panels are white, neatly edged out in black at the junction with the walls. A generous amount of ceiling absorbents, plus the high sound insulation of the partitions, has ensured that there are no problems of noise in the building.

The excellent proportions of the building are well interpreted by skilful natural and artificial lighting. The simplicity of the general treatment, both internally and externally, is well balanced by the interest and richness of the mural at the entrance, and by the balustrade, the same design being used consistently on the stairs, balcony, and in the first floor circulation.

The approximate net cost of the extension was 82s. 3d. per sq. ft. This includes about 11s. 0d. per sq. ft. for finishes and fittings, 13s. 3d. for services, and roughly 2s. 0d. per sq. ft. abnormal foundation costs because of difficult site conditions.

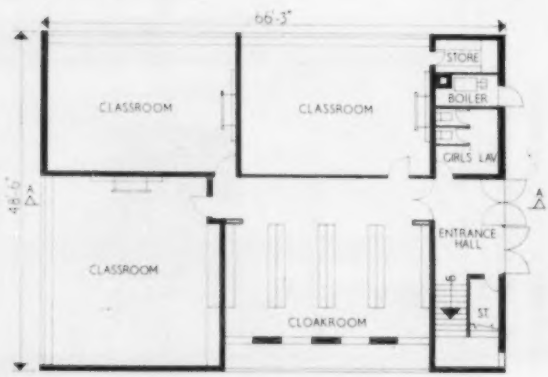


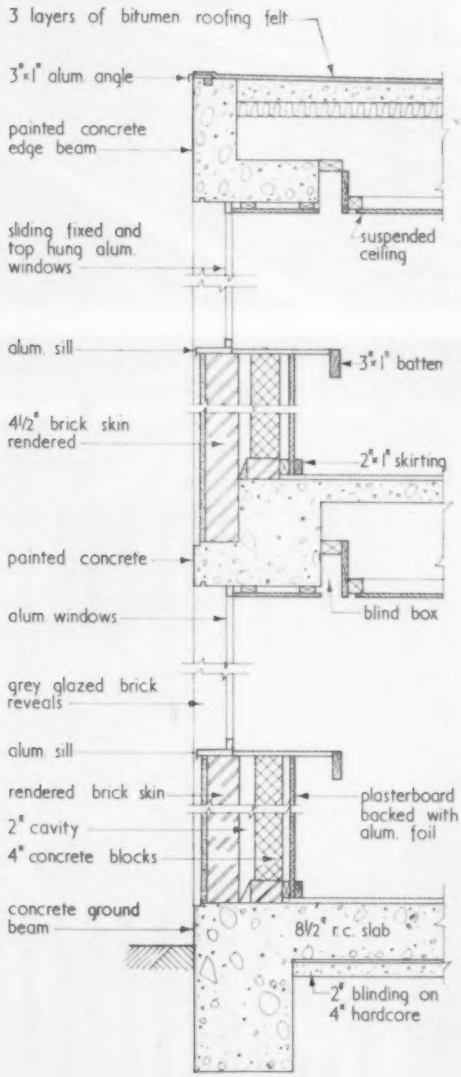
Section AA



First floor plan [Scale: $\frac{1}{16}$" = 1' 0"]

Ground floor plan [Scale: $\frac{1}{16}$" = 1' 0"]





Section through external window wall [Scale: $\frac{1}{4}$" = 1' 0"]

The BASA Editor
The Building Centre
Store Street
London WC1

Monthly supplement

BASA

STUDENT VIEW

Liverpool

Students at Liverpool are in the process of providing themselves with a coffee bar, as BASA rep. Nigel Gough says, " of simple but effective construction." The fittings have been bought with money donated by manufacturers, in addition to many items of high standard furniture given by them.

The design of the coffee bar and of the furnishings has been done by Liverpool students and construction will soon be completed.

Furniture manufacturers wishing to extend their advertising to students by similar donations should contact BASA Permanent Secretary.

Cardiff

Student has received a copy of the introductory programme given to 4th year students at the Welsh School of Architecture, Cardiff, in connection with their Town Planning scheme for Cardiff—" Plan for a capital city." The intro traces briefly the development of the city with reference to the catalytic factor of communications (the electricity grid freed factories from the coalfield . . .). " New means of transporting people and of communicating messages" may yet free the shop and office from town centres. But the spread of towns into the country seems *a priori* undesirable for most people; as the intro says, " if we wish to prevent building development in the countryside . . . and at the same time relieve urban congestion . . . then we certainly have a difficult job on hand."

The dangers of " engineering solutions" to traffic problems are dealt with—and the Government gets its customary pasting for treating the symptoms of the car disease rather than trying to find a cure. The public in general is attacked for " encouraging its planners to prevent development in agricultural areas but has not required them to undertake positive planning in our existing centres."

The actual programme—lasting a whole session, has 7 stages:—

Stage 1: " Introduction ": Series of introductory lectures, visits and a reconnaissance survey.

Stage 2: " Finding Out About the City ": Preparation of survey study sheets.

Stage 3: " Individual Solutions ": Submission of individual solutions in *esquisse* form.

Stage 4: " The Committee Stage ": A series of discussions to analyse problems and formulate policy.

Stage 5: " The Master Plan ": The year will divide into groups. Each group study a different " type " solution.

Stage 6: " The Model ": The year will work as one large group to make a model of one of the schemes.

Stage 7: " Plan for a Capital City "—A public exhibition.

Although Student would have preferred to wait till the scheme has been completed before commenting on the programme, some of the stages do seem a bit ambiguous—has stage 3 been carried out by individuals in competition with one another, for instance? What kind of directive have the year been given as to their attitude towards possible clients? How realistic, and in what sense realistic, is the scheme to be? Any answers?

STUDENT

User Care and the New Biology

Reyner Banham's talk to the RIBA on " The History of the Immediate Future " (part published in *The Listener* for February 23; to be fully published in the RIBA Journal) raised many important issues which directly concern the immediate future of education. Dr. Banham's argument is too subtle to summarise adequately, but the main point is that " the lead in architecture follows the most powerful discipline adjacent to architecture." In the last decade history and architectural history have provided the " non-architectural " stimulus (most notably upon the Brutalists in England and Italy) together with fringe stimuli like science fiction, engineering, etc. In the last few years a new " non-A " conditioning factor has been introduced, in the form first of the social sciences, and more recently still of the human sciences, especially biology.

Thus a more valid reappraisal of the social function of architecture than was made under the historicist influence may become possible—in terms of what Banham calls " a special care for the users of buildings " (as illustrated by English hospitals and schools programmes). But unless really revolutionary changes are implemented, educationwise, the number of architects scientifically and humanly concerned with " the users of buildings " may remain a minority; only to take the place of the historicist minority in thinking in a way one ought to expect from ALL architects.

As Dr. Banham points out, a little science is a dangerous thing. Selective doses of environmental studies may allow students and architects to invent priorities for their own pet subject and make it impossible to gain a general conception of the multifarious factors that contribute to the human condition. So: all or nothing.

Educationally, the only kind of schools that may be able to keep up with the increasing scope of the human sciences are university schools, able, one hopes, to call upon the resources and co-operation of other departments within the single teaching community of the college and the extended community of the university.

It is only by experimenting as boldly as possible in these schools that we shall be able to answer the many questions that arise: In what way will the Human Sciences be taught? What can be learnt from a study of zoology, botany, psychology, physiology, sociology, etc., that is of practical or theoretical use to architects, rather than part of a general " cultural " interest in science? What will happen to the appearance of buildings while this kind of information is being fed to architects? Will architecture become a branch of human engineering? . . .

LES SOURCES DU XX^{ème} SIÈCLE

John Berger, writing in the *New Statesman** some time ago, attacked the existing policies of museum administrators who persist in presenting art as an exclusive preoccupation to be appreciated only by a privileged minority. He quotes Alexander Dorner, director of the Hanover Museum in the thirties—

"That so large and expensive institutions as art museums should still have no other purpose but to fill the visitor with separate emotional impressions that whirl around in his head as the pictures of a kaleidoscope, is a thought hard to bear. . . . Isn't this kind of culture outdated and an escape from actual life? Isn't such a kind of education apt to prevent understanding of our present? Considering that art history has reached the point where it can give us a clear line of evolution from prehistory into our present one might call it unfair into the public. To prove the existence of such an evolution and to convey it through the eyes and the mind means no less than to prove that there is a meaning in the growth of man's visual understanding . . ."

and goes on to outline methods by which art might be presented to the "uninitiated" public by oral, historical and various visual aids.

The exhibition at the Musée d'Art Moderne in Paris organised under the auspices of the Council of Europe and entitled "Les sources du XX^{e} Siècle. (The Arts in Europe 1884-1914)" which recently ended after a four-month run, seems at first sight to be a major step towards some such idealistic policy. The aim of the exhibition was to present the origins and early development of the style which we know today as "modern" in painting, sculpture, the applied arts and architecture. Some 1,600 exhibits and photographs were assembled for this purpose. The *idea* behind the exhibition was bold, imaginative and laudable. The expense of bringing together 800 superb paintings must have been considerable although the exhibition was extremely popular and possibly showed a profit. However, I feel that this initial idea was not realised at all successfully. The sections devoted to architecture and design were especially disappointing if one is to judge by the progressive standards one expects from a museum of *modern* art.

Entering the exhibition through an 1800 Guimard metro entrance and passing two huge photos of the Tour Eiffel and the Halle des Machines by Dutert and Contamin for the 1889 Paris Expo, you were hurled without warning or explanation into the magnificent kaleidoscope. Starting with Renoir and Monet each painter or group of painters was meticulously presented chronologically in separate rooms: through Post Impressionism, Munch, early Picasso, les Nabis, Blaue Reiter, Die Brücke, break for Mackintosh and interior design, on to Cubism, Futurism, early Mondrian, early Malevitch, Modigliani, early Surrealism, Kokotchka, Thomas Cobleigh, and ending with—Architecture! By this time the poor visitor was too tired to care.

Architecture of course *has* to be presented by explanatory substitutes—photographs, models, drawings and details. Here was the opportunity for some exciting visual presentation. But no, instead one wandered around a seemingly haphazard and unrelated collection of photos of every conceivable size (surely a module could have been chosen to limit the variety) mounted on "contemporary" open screens without any explanation at all, punctuated now and then by the odd date—1889 . . . 1900, here and there an occasional plan. The only model was a cast of a piece of Gaudi vaulting for the Sagrada Familia, sitting gloomily in a circular bath of pebbles and bathed in a nightmarish light. The exhibition seemed to end, not with Gropius 1914 Model Factory as might be expected but with Sant'Elia's unrealised projects. So one stumbled out into the welcome air, the brain a confusion of scrambled impressions.

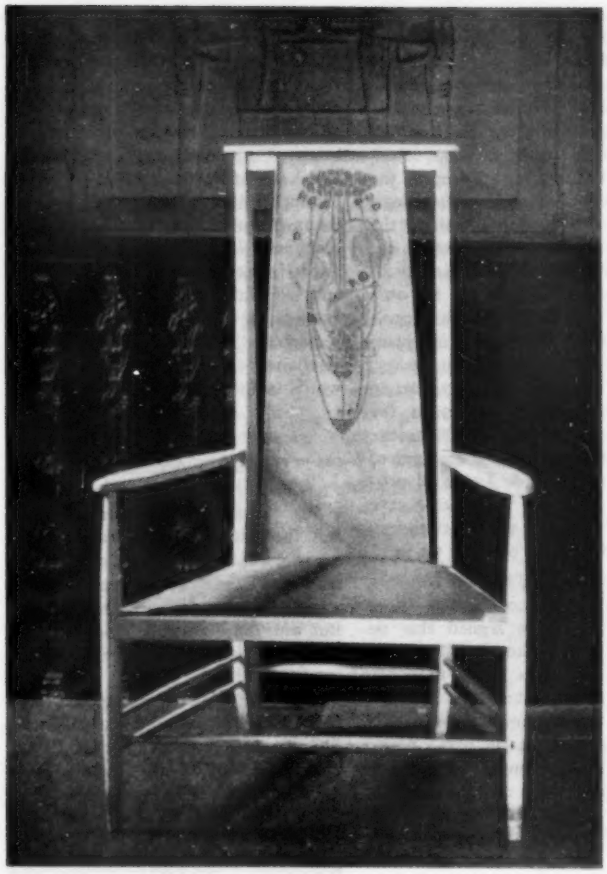
At the outset I feel that too much of the exhibition was allocated to painting, there were too many works shown (I went four times before I could study any of them in detail), whereas sculpture was very poorly represented—no Zadkine, Manolo or Meunier and only one Brancusi—and a relatively small section was devoted to architecture. Taking the cue from Messrs. Berger and Dorner I should like humbly to offer some constructive criticisms of the exhibition as a whole.

First, was it really necessary to separate the fine arts from architecture and design in this manner? Surely the overriding factor should have been to show the logical evolution of modern art and design which took place from the first break with a decadent classicism in the 70s, up to its final recognition as the legitimate style of our century just before the First World War, and every work should have been carefully chosen for its relevance to this theme. It is surely especially important to stress this *evolution* to the "general public" who tend to think that modern art was thought up by a few "charlatans" like Picasso in the 20s. Could not the whole development of all the arts have been shown concurrently evolving towards le style moderne? Thus Sant'Elia would find his rightful place with Boccioni and Severini, Horta with Münch and Hodler, etc. Admittedly, the layout of the Musée did not help. That glorious edifice in the neo-modernistic-pseudo-classical style so beloved of Adolf and Il Duce, is conceived planwise as a traditional museum, i.e. a Grande Salle with a collection of rooms instead of one or more large uninterrupted spaces. Nevertheless an arrangement which presented, say, painting and sculpture on one side with architecture and design running parallel on the other would have greatly aided an understanding of each exhibit within the context of all other related artistic activity.

Again there are clearly key works which stood out with tremendous impact in the exhibition both as grand culminations of certain developments, and points of departure for whole new directions of thought, i.e. Cezanne's "Grandes Baigneuses" (1900-05), Picasso's "Demoiselles d'Avignon" (1907), Münch's "Fillettes sur le Pont" (1899), Behren's Turbine Factory (1909), Perret's Flats in the Rue Franklin (1908), or Gropius's Fagus Factory (1911). By emphasising these and using them as pegs around which to loop other works leading up to or stemming from them (not worrying too much about strict chronological order) some coherence and plan might have been given to the exhibition.

Second, architecture and design were presented entirely without imagination. Surely those responsible for its organisation were familiar with their Pevsner and their Giedion if not their Banham. The date 1884 which is a logical starting point for painting, marking the foundation of the Salon des Independents, has little relation to architecture. It would surely have been better to ignore this restriction in this field. Pevsner† finds two main sources for the modern style in architecture, the one aesthetic, stemming from Morris and the Arts and Crafts Movement, the other technical, evolving from nineteenth-century engineering discoveries—both these finally merging with Art Nouveau and thence the International, Functional or Modern "style."

Here was the lost opportunity. We might have traced the development of the Arts and Crafts Movement in England from its beginnings when Morris turned from the horrors of 1851, through Crane, Ashee, Webb, Goodwin and Shaw to Mackmurdo. Parallel to this there might have been a sequence showing the development of the frame from its earliest beginnings in cast iron in England in the eight-storey mill by Benyon, Bagt and Marshall (1796), Watt and Boulton's seven-storey cotton factory (1801), the Functional Tradition Bogardus, the St. Louis waterfront, Jenny‡ and the first skyscrapers,



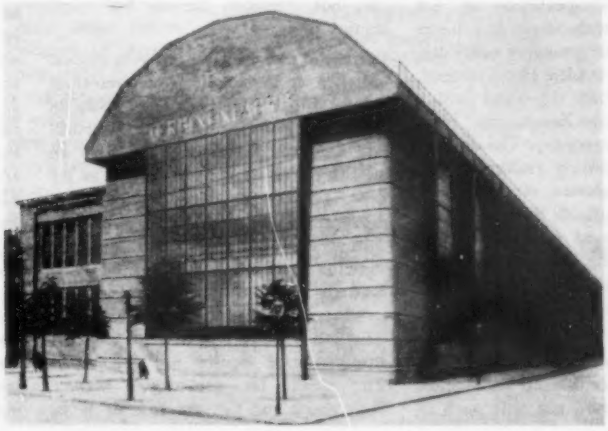
Mackintosh chair 1902, above

Project by Sant'Elia, above right

Paul Cézanne, " Les Grandes Baigneuses " (1900-1905), right

Gaudi s chair from the Calvet house (1898), below right

Behren's turbine factory (1909), below



Labrousse, H. H. Richardson, the Chicago School and Sullivan. Close to this the development of concrete, a form of which was first employed by Smeaton in the Eddystone Lighthouse (1774), then exploited, after the introduction of Portland cement in 1824, by Hennebique, Baudot, Perret and Le Corbusier. In connection with this influence from engineering it is deplorable that no mention was made of Maillart in the exhibition (let alone Brunel) whose 1900 warehouse with its use of mushroom columns surely qualified him, if not his bridges. It may be argued that this is all too technical for such a general exhibition, but surely the "layman" would find considerable interest if such a project were presented well and attractively with plenty of models, diagrams and explanations, so long as any sort of glossy journal-type jargon was avoided. After all, the Science Museum is by far the most popular in England. As it was, the untitled collection of photos was useless both to the initiated who is familiar with them anyway, and to the uninitiated, who is just as bewildered as before.

Art Nouveau was slightly more coherently presented, perhaps because Gaudi, Mackintosh and Mackmurdo were isolated in rooms of their own, apart from the architecture section in which they also figured. However, once again, one arrived at them completely out of context, even Gaudi was not so cut off from other European trends as this. Apparently his contribution to structure is now fully recognised, if belatedly (he is not mentioned once in "Time, Space and Architecture"). It was encouraging also to see the architect of the Glasgow Art School given his rightful place as a major influence (I wore my Union Jack!). Excellent photos of his work were displayed round a centre piece containing examples of his furniture and interior design. However, one then moved to Mackmurdo's famous title page for the 1883 edition of "Wren's City Churches," the *first* work of Art Nouveau—most confusing. Furniture and the applied arts fared even worse than their Mother. A gloomy odd-shaped space was cluttered up with various specimens of Art Nouveau tables, beds, chairs and things whose function was probably never discovered. Here a complete Horta interior, there a Van de Velde sideboard (with a copy of "Also Spake Zarathustra" lying open on top!), a crazy type Gaudi chair and cases insensitively crammed with beautiful vases, glasses, etc., by Gallé or Tiffany of the Ecole de Nancy. Not many people stayed for long in this nightmare drawing room—I half expected some affluent suburban Aunt Edna to serve tea at any moment.

Third, could it have been possible to place the art of this period in relation to the wider historical and sociological context, to integrate not only each of the plastic arts with each other but also with all other artistic, scientific and literary activity. This was a time of discovery and revolution equivalent to the Renaissance. The dawn of the first Machine Age on the one hand and of socialism on the other; "the spectre" was already haunting Europe, the *ancien régime* was on its last legs. New means of communication, the radio, the cinema, the automobile and the aeroplane were being invented. The same revolt against art for art's sake and the superficial bourgeois values of Victoriana were taking place in all the arts; the symbolists in poetry, Schönberg, Debussy and Stravinsky in music, Pirandello and Ibsen in the theatre, Bergson, Husserl and Nietzsche in philosophy, the Bergsonian man of action and the Grands Isolés all proclaimed the new era. The period gave birth to the sources of the twentieth century in the widest possible sense.

Since I have indicated that the contents of the exhibition were already overwhelming it may be argued that to attempt to incorporate all these contemporary influences and thoughts would only have added to the confusion. However, a weak attempt *was* made to show art and design as part of the larger culture. Here and there in nasty little museum cases tucked away in dark corners one came across a first edition of Verlaines "Illuminations" a yellowed Futurist Manifesto, Stravinsky's original score for "L'Oiseau du Feu" or Bergson's doctors thesis. A little case I noticed in the architecture section contained a preliminary sketch for a theory of relativity by one Einstein, Albert. Here and there in the same section were displayed an 1895 Ader aeroplane, Pasquet's 1905 telephone, Edisons 1910 phonograph, on the wall the odd cinema poster of the period. (But what's all that got to do with *art*, Daddy?) The point is this: half-heartedness was just not good enough. The organisers should either have concentrated on the plastic arts or presented the *whole* picture boldly with films, slides, models, ear-phones and what have you and attempted to show that art is not something produced for dilettantes, divorced from life, not "models for us but steps leading to us."*

It may be that I have been over critical of what is, in fact, a very interesting exhibition, that many of these ideas on public art education are unpractical and idealistic. You may argue that an art exhibition should not be like an art book as many of the New York Museum of Modern Art exhibitions are (q.v. "Images of Man"). Yet I feel that something of the sort must be done towards the education, initiation—call it what you will—of the public in art. This should surely be the role of administrative bodies not the artist. The means for combating Messrs. Beaverbook and Co. are few as it is, full use should be made of them, using the latter's own methods if necessary. This applies to architecture most of all, something is sorely needed here and something more than the pathetic attempt to publicise the architect that occurred some time ago. Could not the Old Lady of Portland Place put on an exhibition directed at the public on the theme of the sources of the 20th-century architect? It's just possible that such an undertaking might get a *response*—and wouldn't that be frightful chaps? But, as a dear past president once remarked, "I'm afraid the general public just couldn't care less!" sigh (or words to that effect).

PARIS. Feb. 1961.

LOUIS MARIO HELLMAN

* "Museum Mandarins," *New Statesmen*. 15 October 1960.

† See "Pioneers of Modern Design" and the Catalogue. The catalogue by the way was excellent—but expensive—with an admirable summary of the architectural background by Pevsner. But who can manage to read some 100 pages (of text alone) *and* view the exhibits?

‡ The exhibition was supposed to be confined to Europe but work by Wright, Sullivan, etc., was included under the pretext that Mey had initially been influenced by European developments. After all Sullivan *did* spend two years at the École des Beaux-Arts, Paris!

John Voelcker at the Bartlett

land use and population density

An architect's raw material is space, from this he creates place.

SPACE varies in scale from global space—something we cannot appreciate—to the spaces of quantum physics. An architect must comprehend space if he is to successfully create places. The SCALE of MAN'S ENVIRONMENT has continually increased from the primitive family's territory to the Greek city-state and later the idea of empire. Today man must see himself in the context of the entire globe, we must appreciate STATISTICAL FACTS such as *world population is* 2,885,000,000, *the surface area of the globe is* 35,500,000,000 *acres* so that discounting uninhabitable areas of the world such as polar regions, an even distribution would allow about 12·5 *acres of habitable ground per family and three acres of cultivable land.* Population distribution makes a mockery of this figure, today, *if evenly distributed there would be* 23 *acres of cultivable land per person in Canada,* 0·2 *acres in Japan.* Theoretically we need about 1 *acre per person for continued existence.* In ENGLAND, approximately 0·6 *acres per head are theoretically cultivable, and* 0·5 *acres are under cultivation.* This means that 80 per cent of the land is under cultivation. Most of the remaining 20 per cent of land accounts for

80 per cent of the population.

There are two clearly defined places in England, rural villages and city centres; villages are becoming depopulated with resultant lack of amenity, and city centres are suffocating to death. *In Hull 30 per cent of the population live at a rate of 50 houses per acre at average densities of 1½ persons per habitable room —including the kitchen.* To reduce urban population to reasonable densities would require 6 per cent of new land.

Today's problem of land use can only be solved by new thinking. SO FAR attempts have been small scale and because this is a national problem, inefficient. Such attempts were: development areas, satellite towns, new towns, the only decisive attempt, and green belts, which seem positive but only lead to urban strangulation (*e.g. in Glasgow a belt was formed round Clydeside, inhabitants could not afford to live outside the green belt so densities in the city increased to two people per habitable room in some areas*).

Such failures are the result of anachronistic thinking. The misuse of the land is highlighted by this paradox 1900–1950 *urban population has increased 39 per cent, urban use of space by 62 per cent, yet we still have the Glasgow/Hull type of situation.*

We must think from the beginning; we must ANSWER THE FUNDAMENTAL QUESTIONS. How much space does the nation need for living in? How much for agriculture? And for recreation? What are the density limits if we are to overcome overcrowding and depopulation? How should we define our regions, linearly or concentrically, or what? What are the feasible limits of domestic travel?

On a DOMESTIC scale, how much living space do we require at different ages? How can we arrange that the bulk of people get the sort of house that they require? At the moment 40 *per cent of urban acreage is domestic.* What pool is required to enable a reasonable choice? Having answered these questions how can we preserve individuality in our houses? These questions must be truly answered before we rearrange land usage.

We have reached a position of extreme polarisation, with huge dense towns and small unknit villages. A drastic reorganisation is required, conventional forms such as towns and villages are out of sympathy with the situation as it exists today. New group environments must result from rational analysis of contemporary data and requirements.

Report by **BILL THOMAS**

BASA FACILITIES
integration and apathy

There are two main functions of BASA. Firstly, and most important, to press for the reform of the present system of architectural education. Secondly, BASA offers facilities which are designed to promote *integration* between schools of architecture, and between schools *and* architecture, in its widest sense.

The former aim is exemplified by the series of conferences being held on architectural education and sponsored by BASA. This process of careful analysis necessarily takes a long time and it is only now that BASA has some indication of what its future policies are going to be. However, there will be a time when BASA efforts will be rewarded.

This does not mean that BASA will cease to function at that time. It will still be a dominant factor on the educational scene, both as a watchdog, and as the organisers of those aspects of education now covered by the nucleus of BASA facilities.

As BASA achieves its primary aims, the facilities will become more important. The object of these services will remain the stimulation of students against the apathy, prejudices and non-integrated social activities that exist in most architectural schools.

At present, there is little co-ordination in the training of the architect, either in relation to the internal curriculum, or to co-operation between schools and between schools and the profession. One can realise immediately the benefits of a wider perception of education if these mental barriers are broken down. A lack of exchange of ideas between students can only lead to bigotry and stagnation. BASA promotes the integration of extra-curricular activities as being essential for the positive development of a student's education.

Naturally our existing facilities are to some extent conditioned by the existing system of education—but BASA must work for an expansion of the existing nucleus of facilities in order to provide a wider and more flexible service.

The facilities are designed at present on a self-service basis, by delegating organisation to individual students, co-ordinated by the central executive. This not only relieves the executive of a proportion of work but ensures that schools actively participate in the running of BASA.

There are three basic schemes.

(1) LECTURE POOL. Designed to provide subsidised lectures for all schools, irrespective of size or status. This facility is the most advanced and is in operation. The organising secretary is Graham Lees, and enquiries should be forwarded to him at the RWA school, Bristol. The scheme is a simple printed reply postcard system which incorporates an invitation to all neighbouring schools and allied societies.

(2) TRAVELLING EXHIBITIONS. These are organised on a regional basis and consist of 35 mm. slides of students' work. Each exhibition is collected by a local organising secretary, who sends the total exhibition in rota to the schools in his region. Exhibitions have been lost in the past and this scheme has been designed to offset this danger, as the circuits become smaller and prompt notification of arrival and departure of the exhibition can be sent to the organiser. When local circuits have been completed they will be exchanged nationally. The regional secretaries are:

Home Counties, K. Jeavons (Hammersmith)
South, M. Chester (Canterbury)
Wales and West, M. Gunn (Cardiff)
Midlands, D. Page (Leicester)
North, Miss M. Grenfell (Leeds)
Scotland and N.E., J. Topping (Durham)

(3) VACATION WORK ABROAD. This is centred in London and co-ordinated by Roger Clark. BASA will be creating *two* schemes, as the original system failed through student apathy.

(*a*) With direct affiliation to IESTI which will cater for schools belonging to BASA—there is clearly no reason for duplicating the existing and efficient facilities of IESTI. For individual students BASA will co-ordinate many personal contacts with foreign architects. *Roger Clark would be grateful if any student with foreign connections would contact him.*

Explained above are the outlines of existing facilities: BASA intends to expand these nationally and internationally. The success or failure of these schemes depends to a large extent on the organising secretaries. It is essential that organising secretaries should realise their importance and be able to adapt their thinking to at least a national level. BASA has already experienced some misfortunes in its choice of secretaries: if a secretary finds he is no longer able to fulfil BASA duties, then the executive will understand and look for someone else—but the secretary should inform the executive immediately. Any delay in notification is an embarrassment to BASA and it will be wise for schools to choose their representatives with some care.

I hope that I have not sounded too dictatorial in the last paragraph but have indicated the responsibility of organisers with regard to the great importance of BASA facilities, both now and in the future.

BASA Secretary, **KENNETH CLAXTON**

LIVERPOOL

Report of the annual address by Professor Gardner-Medwin

The Professor gave an account of recent staff discussions on some fundamental reforms in the course and said he wanted to sound student opinion about it. It provoked a good deal of discussion, but apparently no fundamental disagreement.

One of the main ideas, he said, was to give the first three years more completeness as a basic education for architecture—possibly ending with a diploma (or even a Bachelor of Arts degree)—and to provide students in the 4th and 5th years with a chance to concentrate in depth upon some aspect of architecture related to their special talents and interests. The advanced course would remain essentially a professional training for the practice of architecture, as distinct from the basic education of the first three years, but it would be orientated in one of the following directions:—

(1) urban design
(2) structural design
(3) environmental design
(4) historical design.

These orientated studies, all of which would be linked to complex problems of design (though not in the present form of a "prima donna" thesis), would perhaps encourage a larger proportion of students, a year or two after they qualify, to put in a year of post-graduate study, leading to the recently instituted degree of M.Arch.

Reforms in the staffing and equipping of the School would include greatly extended facilities for post-graduate research—an urgent need of the profession.

One of the dangers in schools of architecture was that students were easily led astray by disproportionate absorption with current aesthetic fashions (pro-Mies and anti-historicism six years ago, anti-Mies and pro-historicism today). Everything should be done to ensure that personal characteristics in creative design are allowed to develop naturally after the disciplines of planning and construction have been mastered. Superficial attitudes to "design," divorced from logic in planning and skill in construction, could be disastrous.

Report by NIGEL GOUGH

SPECIAL NOTICES

Footballers

The RIBA would like to have the names of people interested to form a soccer team to play other professional bodies. Would students please forward their names, addresses, and positions, to Mr. Littlejohn, 5 Myrtle Road, Queens Park, Bournemouth, or telephone Dorchester 1700 X 2267.

The

RIBA

SWINGS

It was 8.30 the other evening: those well-known

EMBELLISHED

bronze doors in Portland Place were still

OPEN

inviting an entrance. I entered.

The be-marbled hall was deserted, except for the

sound

of great

SWINGING

music—emanating from somewhere.

An unaccustomed sound at this place? Drifted

down

a flight of stairs to a closed cloakroom Drifted

up

again: music still going

STRONG,

LIKE

crazy.

Took lift to second floor: very

dark

there but for small

patch

of bright light *shooting* from lounge.

Music very strong

NOW

Can it be?

NO!

But

YES,

it is

THELONIUS MONK

In the RIBA?

Made for lounge to

get

with

cats . . . .

Inside, among the bright DECORations and

DESTIJLISH

furniture: 30 or so patrons clustered at the drinks

end

of the room.

Welcomed by Maurice Goldring—Tech. Inf. Off. RIBA—whose

BAR PARTY IDEA

this was.

GOOD IDEA,

meeting

place for *king size* and *filter-tipped* professionals to talk,

drink

and swing.

social

function *without* a formal architectural pretext.

The music proved *too* much for a couple of

COUPLES

who could be seen *jiving* in darkness of gallery—while

verbal jazz

continued within.

Later, well imbibed, left

thinking

when's the next time?

more people?

more publicity?

I'm looking forward to next time.

but watch out you

SQUARES

and

cats.

ROBIN C. MOORE.

APOLOGY

We must apologise to Mr. Denys Lasdun for a misunderstanding in a recent issue concerning the subject of "concrete" in the report of his visit to the Bartlett.

The point that Mr. Lasdun wished to make was that the success of concrete depends upon the context in which it is used because the layman is particularly aware of badly finished concretes To ensure, therefore, a satisfactory finish, it is imperative to obtain (*a*) the best possible workmanship and site supervision, (*b*) carefully planned "pourings" and (*c*) an homogeneous mix . . . all producing a uniform texture and colour.

technical section

THE INDUSTRY

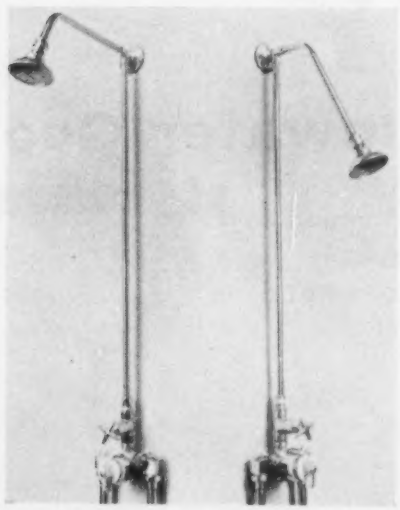
This week Brian Grant describes a floor covering and a shower installation.

Defeating Static Electricity

The Phoenix Rubber Co. is now producing Phengard, a floor covering which will conduct static electricity. Very small particles of carbon black are distributed evenly throughout the mix, which is laid on a 2 in. wide strip of brass foil to act as an earth conductor. This should help to prevent the explosion of inflammable anaesthetic mixtures in hospital operating theatres, or in factories where explosive vapours are used in process work. Two grades of floor are produced at the moment, one for hospitals and the other for industrial use. So far the only possible colour is black, but it is hoped that other colours will be available later on. (*The Phoenix Rubber Co. Ltd., Slough, Bucks.*)

Shower Installations

The illustration below shows a type of standard shower fitting recently introduced by the Leonard thermostat people. It is a simple idea, the shower arm being angled at about three-quarters of its length, so that the shower head can be either overhead or at shoulder height according to the way the arm is fitted. The shower head is pivoted on a ball joint, and the front plate of the rose unscrews quite easily for cleaning. (*Walker, Crosweller & Co. Ltd., Cheltenham, Glos.*)



B
69·003·13

Further increases in materials prices are recorded this quarter together with the February wage increase. Materials affected include cement, sand, ballast, cast iron goods and glass.

A number of new items have been included which it is hoped will increase the usefulness of the prices feature.

The prices are prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors.

8 ESTIMATING

current wage rates, market prices and measured rates

Wage rates

Rates of wages as from February 6, 1961, are as follows:

	Craftsmen	*Labourers*
	s d	*s d*
London District	5 1½	4 6
Liverpool and District	5 1½	4 6
Grade classification A	5 0	4 4½

Market prices

Prices are given for the major items in each trade, they are intended as average prices and include delivery in the London area. They do not include overhead charges and profit.

Measured rates

Prices which are intended to be average for work carried out in the London area include 10% to cover overhead charges and profit except in the case of work which would be carried out by specialists when 5% has been allowed.
The prices given in italics represent the total value of the materials included in the measured rates, including an allowance for waste and 10% for overhead charges and profit.
The cost of labour included in the measured rates (including its proportion of overhead charges and profit) can be ascertained by subtracting the prices in italics from the prices in heavier type.

Abbreviations

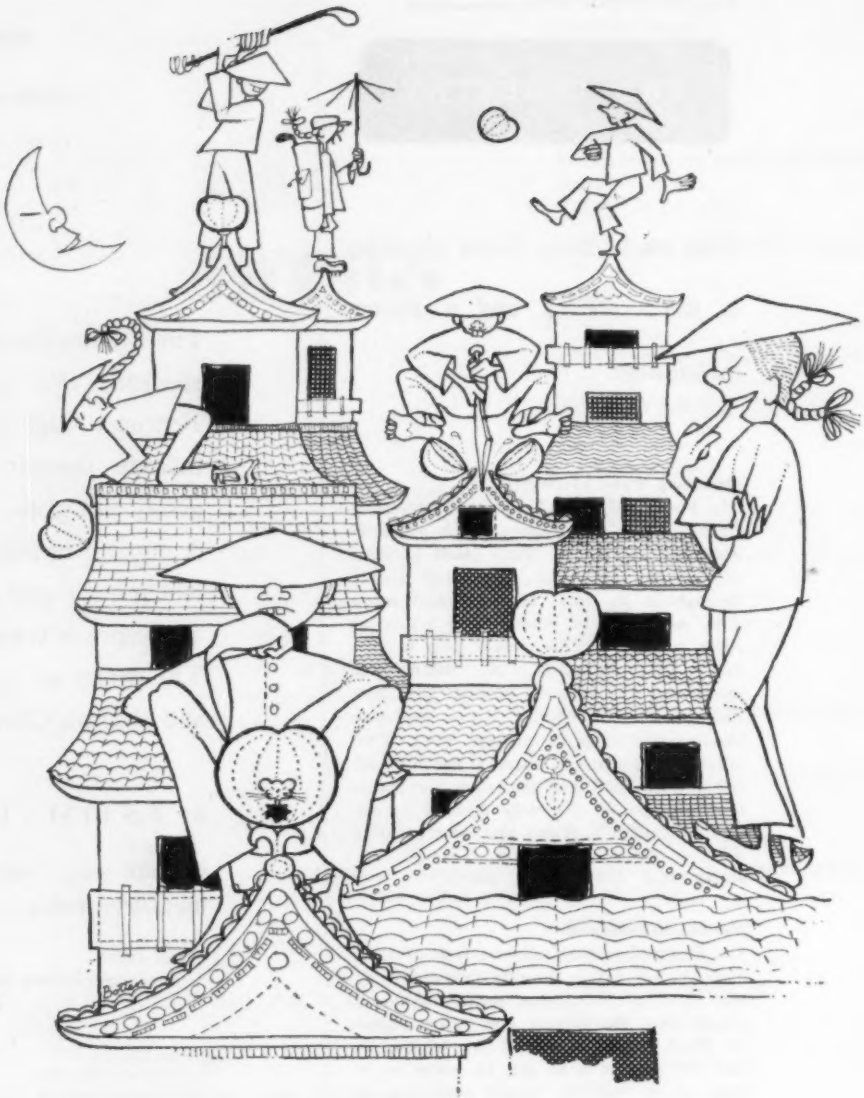
Inches: in. Feet: ft. Yards: Y. Yards cube: YC. Yards super YS. Feet cube: FC. Feet super: FS. Ton: T. Feet run-FR. Thousand: M. Square: Sq. Number: No. Hundredweight: C. Pound: lb. Gallon: Gal.

Preliminaries

To all estimates based on prices for measured rates add, if required, for Preliminaries, water, insurances, etc., depending on the nature of the job.

Price changes

* Shows changes in market prices and measured rates since the last issue (December 22, 1960).



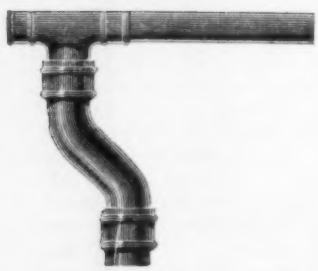
"from a gabled roof... the rolling melon has two choices"

CHINESE PROVERB

from a modern roof **the rain drains quickly away** through

MARLEY

Vinyl Rainwater Goods



internally or externally installed to function faultlessly, need no cleaning and save maintenance and repair costs for all time!

For complete technical information and illustrated leaflet, write to

MARLEY SEVENOAKS · KENT · Sevenoaks 55255
London Showrooms · 251 Tottenham Court Road · W1

technical section

EXCAVATOR

Market prices

Item	Unit	s	d
Carting away, up to 8 miles	YC		
Hand loaded		7	9
Machine loaded		6	0
Hardcore	YC	*10	6

Measured rates

Hand excavation and disposal

NB: the following are applicable to excavation in heavy soil.

Item	Unit	s	d
Excavating over site to remove top soil and vegetable matter, 6 in. deep	YS	1	4
As above, 12 in. deep	YS	2	8
Excavating over site to reduce levels and getting out	YC	*10	10
Excavating for basement and getting out	YC		
Depth up to 5 ft.		*12	2
Depth between 5 & 10 ft.		*17	7
Depth between 10 & 15 ft.		*23	0
Excavating surface trenches and ditto	YC		
Depth up to 5 ft.		*14	11
Depth between 5 & 10 ft.		*20	4
Depth between 10 & 15 ft.		*25	8
Excavating basement trenches and ditto	YC		
Commencing 5 ft below existing ground level		*20	4
Commencing 10 ft. below existing ground level		*25	8
Commencing 15 ft. below existing ground level		*31	1
Add to excavation for:			
Basketing out and depositing	YC	10	10
Underpinning in trenches in short lengths	YC	8	1
Isolated pier holes, etc.	YC	5	5
Breaking up existing brick foundations	YC	45	0
Breaking up existing concrete foundations	YC	60	0
Wheeling surplus excavated material not exceeding 100 yards and depositing	YC	*5	5
Add to last for:			
Roughly spreading and levelling	YC	1	7
Spreading, levelling and consolidating to make up levels	YC	3	6
Returning, filling-in and well ramming excavated material around foundations	YC	4	9
Loading surplus material into lorries and carting to tip, not exceeding 8 miles	YC	*16	1
Excavating from spoil heaps selected top soil, wheeling not exceeding 100 yards, and spreading, levelling and consolidating, not exceeding 6 in. to receive turf	YS	2	4

Excavator—continued

Mechanical excavation and disposal

Item	Unit	s	d
Excavating for shallow surface excavation and loading into lorries or dumpers (using ⅜ yd. cube excavator)	YC	3	0
Excavating for surface excavation and removing, spreading and levelling not exceeding 200 yds. (using 6 yd. cube scraper)	YC	2	11
Removing excavated material and depositing, not exceeding 200 yds. (using 3 yd. cube dumper)	YC	2	2

Planking and strutting

Item	Unit	s	d
Planking and strutting to sides of surface or basement excavation	FS		
Depth up to 5 ft.			9
Depth up to 10 ft.			11
Depth up to 15 ft.		1	1
Planking and strutting to sides of surface and basement trenches	FS		
Depth up to 5 ft.			2
Depth up to 10 ft.			3¼
Depth up to 15 ft.			4
Planking and strutting underpinning in short lengths	FS	1	5
Timber left in excavation	FS	11	0

Hardcore

Item	Unit	s	d
Hardcore filled-in in layers, each layer well rammed	YC	*21	7
		14	*5*
Bed of ditto, 4-in. thick	YS	*3	7
		1	*7*

CONCRETOR

Market prices

Item	Unit	s	d
Portland cement, 6 tons and over	T		
Normal setting		*113	6
Rapid hardening		*124	0
Washed, crushed and graded shingle	YC		
¾-in. down		*19	6
1½-in. down		*18	6
Sharp sand	YC	*22	0
Hollow clay floor blocks to BS. 1190	M		
12-in. × 12-in. × 4-in.		769	0
12-in. × 12-in. × 6-in.		1052	0
12-in. × 12-in. × 8-in.		1509	0
Mild steel rods to B.S. 785 delivered station	T		
1-in. diameter		830	0
⅝-in. diameter		860	0
½-in. diameter		892	6
⅜-in. diameter		922	6
¼-in. diameter		1022	6
Steel wire mesh fabric to BS. 1221	YS		
4·32 lb. per yd. super		2	10
6·57 lb. per yd. super		4	3¾
9·32 lb. per yd. super		6	0¾

Concretor—continued

Measured rates

Concrete

Item	Unit	s	d
Portland cement mass concrete in foundations, etc.	YC		
1 : 12, 1½-in. "all-in" aggregate		*63	2
		41	*1*
1 : 3 : 6, 1½-in. aggregate		*72	2
		50	*0*
1 : 2 : 4, ¾-in. aggregate		*79	7
		57	*6*
1 : 1½ : 3, ½-in. aggregate		*81	2
		59	*0*
Add for:			
Working around rod or mesh reinforcement	YC	*5	5
Underpinning in short lengths	YC	16	3
Walls:	YC		
Not over 6-in. thick		*27	1
6-in. to 12-in. thick		*18	11
Over 12-in. thick		*13	6
Columns:	YC		
Not over 72 sq. inches		*51	5
72 to 144 sq. inches		*40	7
Over 144 sq. inches		*32	6
Suspended floors and roofs	YC		
Not over 4½-in. thick		*21	8
4½-in. to 6-in. thick		*18	11
6-in. to 12-in. thick		*16	3
Beds:	YC		
Not over 4½-in. thick		*10	10
4½-in. to 6-in. thick		8	1
6-in. to 12-in. thick		2	8

Hollow tile floors

Item	Unit	s	d
Hollow tile floor of clay blocks at 15-in. centres laid on formwork (measured separately), nibs filled in with concrete (1 : 2 : 4) and finishing top of tiles with bed of concrete 1½-in. thick including tamping around reinforcement (measured separately)	YS		
4-in. thick tiles		*18	7
		10	*10*
6-in. thick tiles		22	7
		13	*11*
8-in. thick tiles		*28	7
		18	*9*

Sundries

Item	Unit	s	d
Finishing concrete with trowelled face to receive linoleum	YS	1	4
Applying horizontal damp-proof membrane of Synthaprufe in two coats to surface of concrete and blinding with sand to form key	YS	* 5	4
		3	*10*
Supplying floor clips (p.c. 6d. each) and fixing	No.	1	1
Hacking face of concrete to form key	YS	1	9
Bush hammering face of concrete to expose aggregate, from	YS	7	8

technical section

Concretor—continued

Formwork

Formwork including strutting easing and striking:		s	d
Vertical faces of foundation	YS	***19**	**9**
		10	*2*
Vertical faces of wall	YS	***20**	**4**
		7	*3*
Battering faces of walls	YS	**25**	**11**
		9	*0*
Soffit of floors	YS		
Not over 12-ft. high		***20**	**2**
		9	*0*
12-ft. to 14-ft. high		**26**	**8**
		11	*6*
Sloping soffit of stairs	YS	***24**	**4**
		9	*10*
Sides of columns	FS	**2**	**7**
			11
Sides and soffits of lintels and beams	FS	**2**	**9**
		1	*1*
Add to the above for wrot formwork including rubbing down concrete	YS	**2**	**8**

Reinforcement

Mild steel rods to BS 785, hooked, bent, tied and fixing	C	s	d
1-in. diameter		**66**	**8**
		50	*6*
¾-in. diameter		***69**	**11**
		52	*3*
½-in. diameter		***75**	**7**
		54	*2*
⅜-in. diameter		***82**	**7**
		55	*11*
¼-in. diameter		***96**	**11**
		60	*8*
Steel wire mesh fabric to BS 1221 and fixing	YS		
4·32 lb. per yd. super		**4**	**1**
		3	*5*
6·57 lb. per yd. super		**6**	**0**
		5	*3*
9·32 lb. per yd. super		**8**	**6**
		7	*4*

Precast concrete

Precast concrete (1 : 2 : 4) finished fair on exposed faces and hoisting setting and jointing:		s	d
4½-in × 5-in. lintels reinforced with one ½-in. rod	FR	**2**	**11**
		2	*5*
4½-in. × 9-in. ditto with two ½-in. rods	FR	**4**	**5**
		3	*7*

Piling

Reinforced pre-cast concrete piles, approximate prices for supplying, unloading, pitching and driving		s	d
12-in. × 12-in. up to 30 ft. long	FR	**35**	**0**
14-in. × 14-in. up to 50 ft. long	FR	**41**	**0**
Sheet steel piling, ditto	T	**1165** to **1230**	**0**

BRICKLAYER

Market prices

		s	d
Soft sand	YC	*19	0
Hydrated lime	T	110	0
Plain Flettons	M	132	0
Second hard stocks	M	*352	2
Lingfield Engineering wire cuts Grade B	M	*286	0
Hessian base damp-course to BS 743	YS	*4	4½
Damp course slates, 14-in. × 9-in.	100	*76	0
Wall ties, galvanised	100	15	8

Partitions

		s	d
Clinker concrete, solid	YS		
2½-in.		5	7
3-in.		7	1
4½-in.		9	4
Thermalite	YS		
2½-in.		7	0
3-in.		8	5
4-in.		11	0
6-in.		16	6
Hollow clay	YS		
2½-in.		4	7
(6 cavity) 3-in.		5	9
(ditto) 4-in.		7	3
Normal quality wood wool slabs	YS		
2-in.		8	10
2½-in.		10	2
3-in.		11	5

Measured rates

		s	d
Reduced brickwork in cement lime mortar, Lingfields in cement mortar	YS		
Flettons		***36**	**2**
		19	*0*
Second stocks		***59**	**10**
		42	*9*
Lingfield Grade B		***55**	**11**
		**36*	*2*
Half brick wall ditto	YS		
Flettons		***19**	**11**
		9	*1*
Second stocks		***31**	**9**
		20	*11*
Lingfield Grade B		***30**	**5**
		17	*7*
11-in. hollow wall with 2-in. cavity and wall ties	YS		
Flettons		***43**	**3**
		18	*5*
Second stocks		***67**	**0**
		42	*2*
One brick wall built fair and pointed both sides	YS		
Flettons		***43**	**3**
		19	*0*
Second stocks		***67**	**0**
		42	*8*
Lingfield Grade B		**61**	**10**
		36	*2*

Sundries

		s	d
Extra for internal fair face and flush pointing	YS	**1**	**6**
Cutting, toothing and bonding new work to old	FS	**5**	**9**

Bricklayer—continued

Damp-proof courses

		s	d
Horizontal damp-proof course of two courses of slates and bedding and pointing	FS	**4**	**3**
		2	4
Horizontal damp-proof course of hessian base bitumen and laying on brick walls	FS		**10**
			7
Horizontal damp-proof course of lead lined hessian base bitumen and laying on brick walls	FS	**1**	**9**
		1	6

Facings

Extra over ordinary brickwork with bricks P.C. 132s. per 1,000 for facings as described		s	d
To solid wall in Flemish bond	YS		
Facings P.C. 250s. per M		**15**	**3**
		8	*7*
Facings P.C. 350s. per M		**22**	**6**
		15	*10*
Facings P.C. 450s. per M		***29**	**10**
		23	*2*
To cavity wall in stretcher bond	YS		
Facings P.C. 250s. per M		**12**	**8**
		6	*7*
Facings P.C. 350s. per M		***18**	**3**
		12	*1*
Facings P.C. 450s. per M		**23**	**9**
		17	*7*
Half brick wall in facings built fair and pointed on one side	YS		
Facings P.C. 250s. per M		***31**	**4**
		16	*1*
Facings P.C. 350s. per M		***36**	**11**
		21	*7*
Facings P.C. 450s. per M		***42**	**6**
		27	*2*

Partitions

		s	d
Clinker concrete solid partition blocks and setting in cement lime mortar	YS		
2½-in.		***12**	**5**
		6	*10*
3-in.		**15**	**1**
		8	*8*
4½-in.		***19**	**2**
		11	*5*
Thermalite ditto	YS		
2½-in.		**12**	**11**
		8	*6*
3-in.		**15**	**4**
		10	*3*
4-in.		**19**	**6**
		13	*4*
6-in.		**27**	**7**
		19	*10*
Hollow clay ditto	YS		
2½-in.		***11**	**3**
		5	*8*
(6 cavity) 3-in.		***13**	**7**
		7	*2*
(ditto) 4-in.		***16**	**9**
		9	*0*
Wood wool slabs ditto	YS		
2-in.		**14**	**4**
		10	*6*
2½-in.		**16**	**7**
		12	*2*
3-in.		**18**	**10**
		13	*9*

technical section

DRAINLAYER

Market prices

Salt glazed stoneware pipes and fittings, "Best" quality:

	Unit	Size	s	d
Ordinary pipes	FR	4-in.	1	7
		6-in.	2	4½
		9-in.	4	3¼
Bends	No.	4-in.	4	9
		6-in.	7	1½
		9-in.	19	3
Pitch fibre pipe	FR	3-in.	1	10¾
		4-in.	2	6
		6-in.	5	0¾
Cast iron spigot and socket pipe to BS 437	YR	4-in.	*31	1
		6-in.	*45	6
		9-in.	*85	2
Spun iron spigot and socket pipe to BS 1211, Class B	YR	4-in.	*14	5
		6-in.	*22	7
		9-in.	*37	9

Measured rates

Trenches and beds

	Unit	Size	s	d
Excavate trenches by hand in heavy soil, including planking and strutting, part returning, filling and ramming and wheeling and spreading surplus, for pipes 4-in., 6-in. and 9-in. dia.	YR			
Average depth of trench		3-ft.	*18	1
		4-ft.	*24	2
		6-ft.	*41	6
		9-ft.	76	8
Excavate trench as last but by mechanical trencher	YR			
Average depth of trench		3-ft.	*13	8
		4-ft.	*18	9
		6-ft.	*33	10
		9-ft.	*55	11
6-in. concrete bed and benching for:	YR			
4-in. diameter pipes			*9	11
			6	*0*
6-in. diameter pipes			*11	7
			7	*0*
9-in. diameter pipes			14	1
			8	*6*
6-in. concrete bed and surround for:	YR			
4-in. diameter pipes			*16	2
			9	*9*
6-in. diameter pipes			*19	6
			11	*9*
9-in. diameter pipes			24	8
			14	*10*

Stoneware drains

	Unit	Size	s	d
" Seconds " quality salt-glazed stoneware drain pipes and laying and jointing in trench	FR	4-in.	2	5
			1	*8*
		6-in.	*3	6
			2	*5*
		9-in.	*5	8
			4	*5*
" Best " quality salt-glazed stoneware drain pipes and laying and jointing in trench	FR	4-in.	2	8
			1	*11*
		6-in.	*3	11
			2	*10*
		9-in.	6	5
			5	*2*
Extra over " Seconds " quality pipes for:				
Bend	No.	4-in.	3	9
			3	*2*
		6-in.	5	5
			4	*9*
		9-in.	15	8
			14	*11*
Single junction	No.	4-in.	6	5
			4	*10*
		6-in.	9	3
			7	*4*
		9-in.	19	9
			17	*6*
Double junction	No.	4-in.	10	9
			8	*1*
		6-in.	15	5
			12	*3*
		9-in.	30	1
			26	*4*

Stoneware gullies

	Unit	Size	s	d
Salt-glazed trapped gully with galvanised grating including setting gully on and surrounding with concrete and jointing to drain	No.			
6 in. × 6 in. grating 4 in. outlet			*26	4
			21	*9*
9 in. × 9 in. grating 6 in. outlet			*48	5
			42	*7*
Grease and mud gully 9-in. diameter with 4-in. outlet galvanised bucket and grating and setting gully on and surrounding with concrete and jointing to drain	No.		*91	2
			79	*4*
Road gully with 6-in. outlet including setting on and surrounding with concrete and jointing to drain	No.			
15-in. dia. 30-in. deep			*122	4
			98	*4*
18-in. dia. 48-in. deep			*244	10
			205	*2*

Pitch fibre drains

	Unit	Size	s	d
Pitch fibre drain pipes and laying and jointing in trench	FR	3-in.	2	3
			2	*1½*
		4-in.	2	11½
			2	*9½*
		6-in.	5	10
			5	*8*
Extra over pitch fibre pipe for 45° sweep bend	No.	3-in.	10	0
			9	*1*
		4-in.	14	6
			13	*7*
		6-in.	27	8
			26	*7*

Cast iron drains

	Unit	Size	s	d
Cast iron spigot and socket drain pipes and laying and jointing in trench	FR	4-in.	*14	4
			12	*0*
		6-in.	*20	9
			17	*10*
		9-in.	*39	6
			33	*3*
Spun cast iron spigot and socket drain pipes and laying and jointing in trench	FR	4-in.	*7	10
			5	*8*
		6-in.	*11	10
			9	*0*
		9-in.	*21	2
			15	*2*
Extra over cast iron pipes for:				
Bend	No.	4-in.	* 32	0
			25	*4*
		6-in.	*74	11
			65	*0*
		9-in.	*191	9
			174	*9*
Branch	No.	4-in.	49	8
			42	*2*
		6-in.	111	0
			99	*9*
		9-in.	268	7
			252	*7*

Cast iron gullies

	Unit	Size	s	d
Cast iron gully trap with high invert and setting on and surrounding with concrete and jointing to drain	No.	4-in.	*45	4
			37	*11*
		6-in.	*112	2
			101	*5*
		9-in.	*252	2
			237	*1*

Cast iron inspection fittings

	Unit	Size	s	d
Branch with one branch each side	No.	4-in.	185	4
			173	*10*
		6-in.	293	0
			276	*0*
		9-in.	600	4
			574	*7*
Branch with two branches each side	No.	4-in.	299	3
			283	*8*
		6-in.	464	1
			441	*3*
		9-in.	941	8
			906	*1*

Manhole covers and frames

	Unit	Size	s	d
Galvanised cast iron to BS 497 Grade C and bedding frame in cement and cover in grease				
Double seal flat	No.	24-in. × 18-in.	128	1
			121	*2*
		24-in. × 24-in.	197	5
			188	*10*
Double seal recessed	No.	24-in. × 18-in.	134	10
			128	*0*
		24-in. × 24-in.	197	5
			188	*10*

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technical section

ASPHALTER

Measured rates

Damp proof course and tanking

		s	d
½-in. vertical damp proof course in two thicknesses on brick or concrete	YS		
	BS1097	**17**	**4**
	BS1418	**21**	**6**
½-in. horizontal damp proof course in one thickness on brick or concrete	YS		
	BS1097	**10**	**6**
	BS1418	**13**	**8**
Vertical tanking in three thicknesses	YS		
	BS1097	**24**	**8**
	BS1418	**29**	**11**
Horizontal tanking in three thicknesses	YS		
	BS1097	**17**	**4**
	BS1418	**25**	**2**

Roofing

		s	d
¾-in. flat laid to falls in two thicknesses on and including felt underlay	YS		
	BS988	**12**	**1**
	BS1162	**18**	**5**
6-in. skirting with angle fillet at bottom and rounded edge at top turned into groove	FR		
	BS988	**2**	**1**
	BS1162	**2**	**7**
6-in. fascia with solid water check roll at top and under-cut drip at bottom	FR		
	BS988	**4**	**2**
	BS1162	**4**	**9**

Flooring

		s	d
¾-in. asphalt flooring laid on prepared screed	YS		
	BS1076	**12**	**3**
	BS1410	**18**	**5**
⅝-in. brown asphalt flooring laid on prepared screed	YS		
	BS1451	**14**	**8**
⅝-in. brown pitchmastic flooring laid on prepared screed	YS		
	BS1375	**11**	**10**

Sundries

		s	d
Labour and material forming collars around pipes including angle fillet at bottom and rounded top edge	No.		
	Small pipe	**4**	**9**
	Large pipe	**7**	**11**
Labour warming up and jointing new to old flat	FR	**1**	**1**

PAVIOR

Market prices

		s	d
Granite chippings, ¼ in. to dust	T	48	7
Red quarry tiles, 6 in. × 6 in. × ⅞ in.	YS	14	2
Noelite paving, 2-in.	YS	13	11

Measured rates

		s	d
Cement and sand floated screed to receive pavings	YS		
	¾-in.	**4**	**3**
		2	*4*
	1-in.	***5**	**2**
		3	*1*
	1¼-in.	***5**	**10**
		3	*6*
Cement and sand paving trowelled hard and smooth	YS		
	¾-in.	***4**	**10**
		2	*4*
	1-in.	***5**	**9**
		3	*1*
	1¼-in.	***6**	**4**
		3	*6*
Granolithic paving laid on concrete	YS		
	1-in.	**7**	**6**
		5	*3*
	1½-in.	***9**	**8**
		6	*11*
½-in. red composition paving laid on prepared screed	YS	**16**	**6**
⅝-in. terrazzo paving laid on prepared screed	YS	**38**	**4**
Sheet rubber flooring, plain and marble colours and laying	YS		
	⅛-in.	**39**	**5**
	$\frac{3}{16}$-in.	**47**	**3**
	¼-in.	**57**	**9**
Sheet linoleum, plain colours and fixing with mastic	YS		
	3.2 mm.	***21**	**0**
	4.5 mm.	***26**	**3**
⅛-in. thermoplastic tile flooring and laying-on screed	YS	***9**	**6**
		to	
		***15**	**9**
Cork tile flooring, fixing with mastic and sealing	YS		
	¼-in.	**29**	**11**
	$\frac{5}{16}$-in.	***33**	**1**
P.V.C. tile flooring and fixing with mastic	YS		
	2 mm.	**28**	**11**
	3 mm.	**40**	**5**
Vinyl tile flooring and fixing with mastic	YS		
	2 mm.	**18**	**1**
	3.2 mm.	**23**	**8**
Red quarry tiles laid on prepared screed	YS		
	⅝-in.	***25**	**9**
	⅞-in	***29**	**0**
2-in. Noelite paving laid on prepared bed, in random sizes and mixed colours	YS	***20**	**6**
		16	*1*
12 in. × 12 in. anchor steel plates laid complete	YS	***60**	**3**

MASON

Market prices

		s	d
Stone in blocks in truckloads at stations in the London area:			
Beer	FC	10	6
Portland	FC	9	10
Woodkirk Blue building quality	FC	19	2
Broughton Moor slate in blocks at stations in the London area	FC	60	0
Marble in blocks at works:			
Dove	FC	70	0
Roman stone	FC	65	0

Measured rates

Stone and all labours, fixing and setting in mortar:

		s	d
Pilasters and quoins	FC		
	Portland	***58**	**10**
	Beer	***56**	**0**
Jambs	FC		
	Portland	***61**	**11**
	Beer	***59**	**0**
Lintels	FC		
	Portland	***63**	**3**
	Beer	***60**	**3**
Arches	FC		
	Portland	***79**	**3**
	Beer	***75**	**6**
Ashlar average 7-in. on bed with plain dressed face	FS		
	Portland	***34**	**8**
	Beer	***33**	**0**
Extra for each additional 1-in. thickness	FS		
	Portland	***4**	**9**
	Beer	***4**	**6**
4½-in. × 4-in. sill sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	FR		
	Portland	***12**	**10**
	Beer	***12**	**3**
	Artificial	**5**	**1**
4-in. × 12-in. coping, weathered and twice throated set and jointed in cement mortar	FR		
	Portland	***24**	**11**
	Beer	***23**	**9**
	Artificial	**12**	**3**
Steps and thresholds	FC		
	Portland	**61**	**5**
	Artificial	**36**	**6**

Marble and slate

		s	d
¾-in. plain polished linings and fixing on brick backings	FS		
	Broughton Moor slate	**27**	**3**
	Roman stone	**35**	**9**
	Dove marble	**37**	**10**

Faience

		s	d
1¼-in. faience slabs and fixing on prepared brick or concrete backing	YS	**115**	**6**

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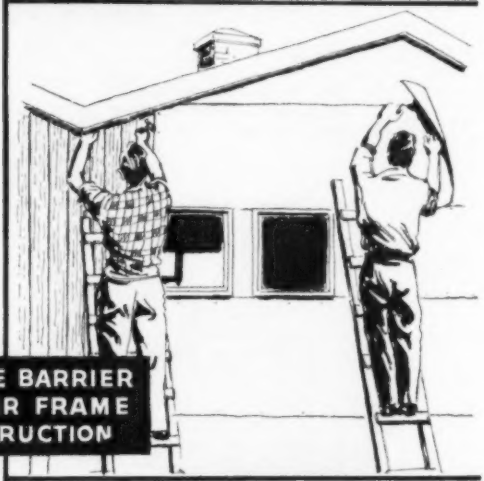

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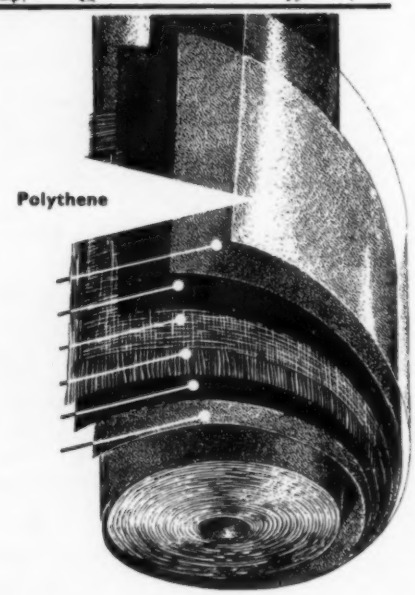
APPLICATIONS

Sarking under tiles and slates
Moisture barrier in timber frame construction
Under timber floors
Moisture and air stop in walls
Underlay to concrete
Separation layer between concrete
Curing concrete
Form lining
Protection from frost
Temporary tarpaulin



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technical section

SLATER, TILER AND ROOFER

Market prices

Item	Unit	s	d
Welsh slates, best quality	M		
16-in. × 10-in.		1042	9
20-in. × 10-in.		2000	0
Best hand made sand faced plain tiles, 10½-in. × 6½-in.	M	386	6
Plain concrete tiles, 10½-in. × 6½-in.	M	170	3
Interlocking concrete tiles, 15-in. × 9-in.	M	425	0
Grey corrugated asbestos cement sheets	YS	7	0

Measured rates

Item	Unit	s	d
Welsh slates laid to a 3-in. lap	Sq.		
16-in. × 10-in.		**293**	**0**
20-in. × 10-in.		**406**	**0**
Westmorland green slates in random sizes laid 3-in. lap	Sq.	***722**	**0**
Westmorland green slates hung vertically	Sq.	**742**	**0**
Best hand made sand faced plain tiles, 10½ in × 6½ in. laid to a 4-in. gauge	Sq.	**252**	**0**
Best hand made sand faced plain tiles, 10½ in. × 6½ in. hung vertically to 4½-in. gauge	Sq.	**268**	**0**
Plain concrete tiles, 10½-in. × 6½-in. laid to a 4-in. gauge	Sq.	**123**	**0**
Berkshire hand made sand faced red pantiles, 14½ in. × 10 in. laid 2½-in. head and 1½-in. side lap	Sq.	***223**	**0**
Interlocking concrete tiles, 15-in. × 9-in. laid to a 3-in. lap	Sq.	**85**	**0**
Grey corrugated asbestos cement sheets fixed to wood roofs	Sq.	**123**	**0**
Grey corrugated asbestos cement sheets fixed vertically	Sq.	**133**	**0**
Cedarwood shingles laid 5-in. gauge	Sq.	**245**	**0**
Metal roof decking and fixing with hook bolts, finished with ½-in. insulation board and three layers self finish felt roofing	YS		
18 gauge for spans up to 10 ft.		**60**	**6**
20 gauge for spans up to 8 ft. 6 in.		**52**	**6**
Two layer one ply bitumen felt and fixing with bitumen to concrete or boarding	YS	**9**	**6**
Three layer bitumen felt	YS	**12**	**7**
Nuraphalte thermoplastic roofing laid on prepared surface, for areas of 300 to 400 yd. super	YS	**27**	**6**
Patent ribbed aluminium roofing and fixing to purlins	Sq.	***325**	**0**

CARPENTER

Market prices

Item	Unit	s	d
Softwood	Std.		
Carcassing quality		1840	0
Joinery quality		2300	0
½-in. fibre board	Sq.	**46**	**6**
⅛-in. standard hardboard	Sq.	*39	0
⅜-in. insulating gypsum wallboard	YS	2	11

Measured rates

Softwood and fixing

Item	Unit	s	d
In plates, sleeper joists and lintels	FC	15	4
		13	*4*
In floor and ceiling joists	FC	**17**	**11**
		13	*4*
In stud partitions, purlins and struts	FC	***20**	**3**
		13	*4*
In hip and valley rafters	FC	***23**	**1**
		13	*4*

Battening and boarding

Item	Unit	s	d
Slate or tile battens 1½ in. × ¾ in. and nailing to fixing for:	Sq.		
16-in. × 10-in. slating to 6½-in. gauge		***43**	**3**
20-in. × 10-in. slating to 8½-in. gauge		***33**	**0**
10½-in. × 6½-in. plain tiling to 4-in. gauge		***59**	**0**
14½-in. × 10-in. pantiles to 12-in. gauge		***23**	**0**
S.E. boarding in batten widths close jointed and fixing to flat or sloping roofs	Sq.		
¾-in.		***120**	**6**
		85	*0*
1-in.		***147**	**6**
		112	*0*
T. & g. boarding in batten widths close jointed and fixing to flat or sloping roofs	Sq.		
¾-in.		***140**	**6**
		96	*0*
1-in.		***171**	**6**
		127	*0*
¾-in. wrot and cross tongued eaves soffit	FS	***2**	**4**
		1	*0*
¾-in. × 6-in. wrot and grooved eaves fascia p.o.	FS		**10**
			6

Wall and ceiling boards fixed to softwood

Item	Unit	s	d
	YS		
½-in. fibre board		**6**	**10**
		5	*0*
⅛-in. hardboard		***5**	**9**
		4	*3*
⅜-in. insulating gypsum wallboard		**5**	**6**
		3	*8*
3/16-in. asbestos cement flat sheeting		**8**	**11**
		4	*11*
¼-in. asbestos cement flat sheeting		**10**	**8**
		6	*8*
2-in. Stramit, showerproof quality fixed to joists with butt joints		***16**	**2**
		11	*7*

JOINER

Measured rates

Floors and skirtings

Item	Unit	s	d
Tongued and grooved softwood flooring and nailing to joists	Sq.		
⅞-in.		***166**	**0**
		124	*0*
1-in.		***191**	**0**
		149	*0*
1-in. nominal double grooved t. and g. block flooring set in mastic and polished	YS		
Swedish softwood		**30**	**0**
European beech		**32**	**6**
African Muhuhu		**37**	**9**
Burma teak		**41**	**0**
Moulded skirtings, 3-in. to 6-in. sectional area planted on (per inch in sectional area)	FR		
Softwood			**3**
			2½
Oak			**10**
			9
Extra for grounds plugged to brickwork	FR		
Softwood			**10**
			2

Windows

Item	Unit	s	d
2-in. rebated and moulded sashes divided into squares	FS		
Softwood		**3**	**11**
Oak		**11**	**10**
Extra for side hanging	Each		
Softwood		**3**	**0**
Oak		**4**	**6**

Doors

Item	Unit	s	d
2-in. framed, ledged and braced doors, filled in with 1-in. t. and g. and V jointed boarding and hanging	FS		
Softwood		**6**	**8**
		5	*10*
Four panelled door square both sides and hanging	FS		
Softwood		**7**	**2**
		6	*5*
Oak		**21**	**2**
		20	*1*
1⅜-in. Standard flush door, hardboard faced size 2 ft. 6 in. × 6 ft. 6 in. and hanging	No.	**44**	**6**
		32	*5*
1¾-in. honeycomb core flush door lipped four edges, veneered faced with West African Cedar, size 2 ft. 6 in. × 6 ft. 6 in. and hanging	No.	**75**	**6**
		63	*3*

Linings and frames

Item	Unit	s	d
Window and door linings, 6-in. to 12-in. sectional area (per inch sectional area)	FR		
Softwood			**4**
			3
Oak			**10**
			9
Frames wrot all round and framed (per inch sectional area)	FR		
Softwood			**3½**
Oak			**10**

Ibstock FACING BRICKS

—today's natural colour choice

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When building an extension to an existing building, as with the new Library extension at

KING'S COLLEGE

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the natural choice was Ibstock Facing Bricks. Handmade or Machine made, there is a large colour range available to blend with any existing building.

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Joiner—continued

		s	d
Mullions, transomes and sills (per inch sectional area)	FR		
Softwood			**4**
Oak			**10**
Mouldings, architraves, etc., 4-in. to 6-in. sectional area (per inch sectional area)	FR		
Softwood			**4**
			3
Oak			**11**
			10
6-in. window boards, 1-in. thick with rounded nosing tongued at back and including bearers	FR		
Softwood		**3**	**3**
		1	*9*
Oak		**5**	**10**
		3	*8*
Shelving and fittings			
¾-in. shelving of 2-in. slats spaced 1-in. apart on bearers (measured separately)	FS		
Softwood		**2**	**8**
		2	*0*
¾-in. solid shelving on bearers	FS		
Softwood		**2**	**5**
		2	*0*
Oak		**4**	**11**
		4	*4*
2-in. shelf bearers plugged to wall	FR		
Softwood			**8**
			5½
Oak		**1**	**4**
		1	*1*
Staircases			
1-in. treads and ¾-in. risers tongued together on and including framed carriages	FS		
Softwood		**5**	**0**
		3	*10*
Oak		**14**	**10**
		13	*2*
1¼-in. × 11-in. wall string plugged to brickwork	FR		
Softwood		**4**	**10**
		3	*9*
Oak		**12**	**7**
		11	*1*
1¼-in. × 9-in. outer string	FR		
Softwood		**3**	**9**
		3	*1*
Oak		**8**	**0**
		7	*2*
Ends of treads and risers housed to strings	No.		
Softwood		**1**	**4½**
Oak		**7**	**2**
2½-in. × 3-in. moulded handrail	FR		
Softwood		**3**	**4**
		2	*8*
Oak		**7**	**1**
		6	*2*
1¼-in. × 1¼-in. square balusters	FR		
Softwood			**9**
			6½
Oak		**1**	**5**
		1	*2*
Framed ends to balusters	No.		
Softwood			**7**
Oak			**10**

IRONMONGER

Market prices

As prices for ironmongery vary so greatly depending upon the type and quality required, no prices are quoted here

Measured rates

The rates which follow are for **fixing only** and are inclusive of profit

		s	d
To softwood			
3-in. steel butts	Pr.	**4**	**10**
6-in. barrel bolts	No.	**2**	**2**
Cupboard locks	No.	**4**	**6**
Cylinder night latch	No.	**7**	**7**
Mortice latch	No.	**6**	**0**
Mortice lock	No.	**7**	**7**
Casement fastener	No.	**1**	**10**

To hardwood

Add 33⅓% to above

STEEL & IRON WORKER

Market prices

		s	d
Structural steel joist sections, basis sizes, ex mills	T	792	6

Extras for other than basis sizes vary between 10s. and 70s. per ton

Measured rates

		s	d
Rolled steel joists in steel framed structures hoisted and fixed complete	T	***1650**	**0**
Rolled steel stanchions including caps, bases, cleats, etc.	T	***1910**	**0**
Riveted compound girders including plates and rivets	T	***1940**	**0**
Metal windows including cutting and pinning lugs to brickwork and bedding frames in cement mortar	No.		
Domestic type 4 ft. high to BS 990			
Type ND2F 3 ft. 3¼ in. wide		***96**	**1**
		78	*10*
Type HD2F 3 ft. 3¼ in. wide		***107**	**1**
		89	*10*
Type ND11F 6 ft. 6½ in. wide		***164**	**4**
		133	*10*
" Z " range, 4 ft. high			
Type ZND1 2 ft. 0¾ in. wide		***64**	**8**
		53	*2*
Type ZND4F 6 ft. 0¾ in. wide		***166**	**10**
		13[illegible]	*5*
Curtain walling grid with proportion of opening lights, supplied and fixed excluding glazing and infill panels, approximate prices	FS		
Galvanised steel		**22**	**0**
Aluminium		**35**	**0**

PLASTERER

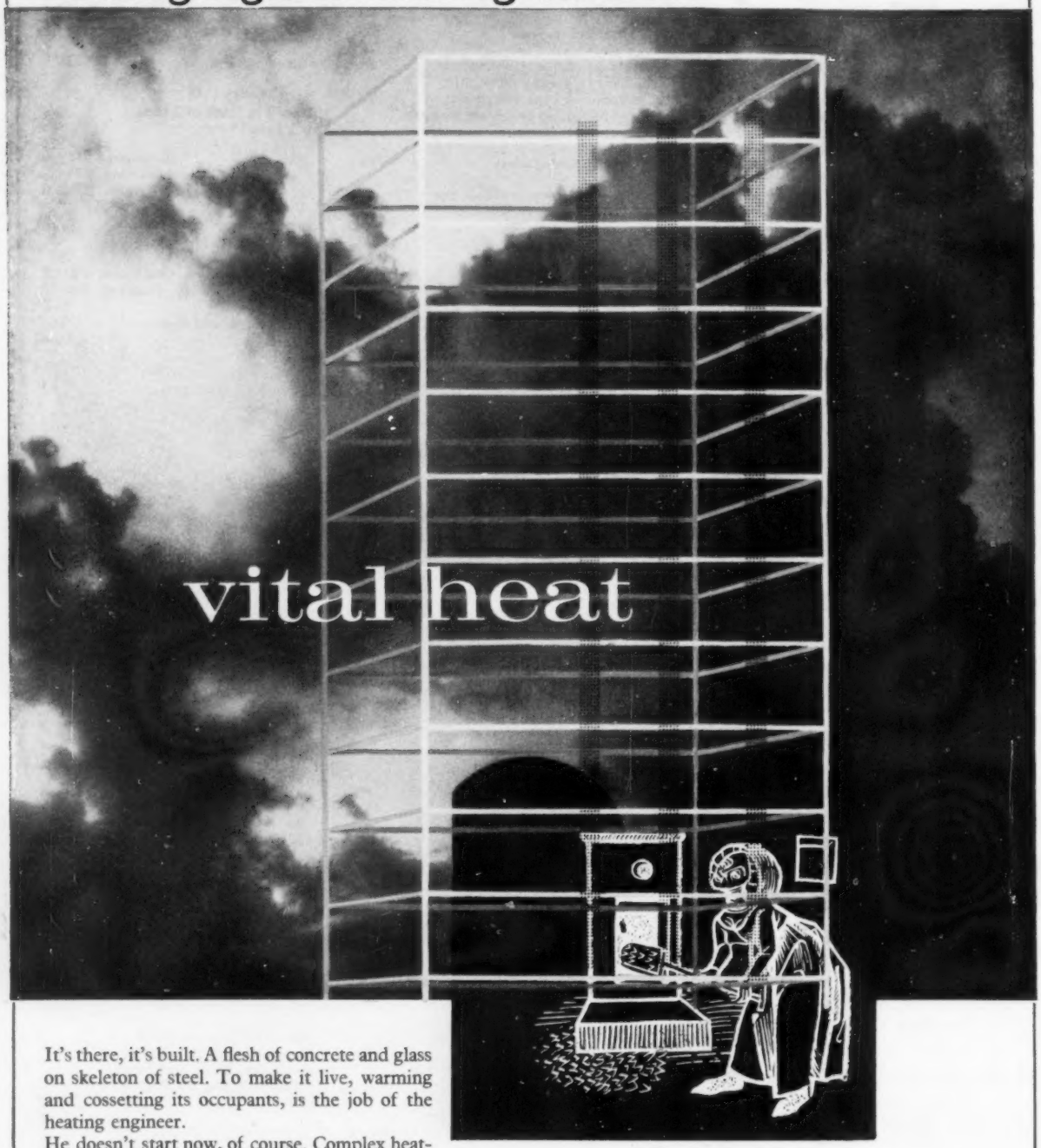
Market prices

		s	d
Plastering sand	YC	*22	0
Plaster to BS 1191 Class B in loads of 2 tons to 3 tons 19 cwt.	T		
Browning		171	0
Fibred browning		174	0
Board finish		171	0
Carlite plaster in loads of 2 tons to 3 tons 19 cwt.	T		
Undercoat		280	0
Finishing		235	0
⅜-in. plaster lath, over 600 yds.	YS	2	2½
6-in. × 6-in. × ¼-in. white glazed wall tiles	YS	18	3

Measured rates

		s	d
Metal lathing			
No. 24 gauge expanded metal lathing and fixing	YS		
To softwood soffits		**6**	**11**
		4	*3*
To metal		***7**	**9**
		4	*3*
28 BG steel angle bead to BS 1246, Figure 7, Profile C3, plugged to brickwork or partitions	FR	**1**	**2**
			5
Lime plaster			
Render float and set on brick walls and partitions	YS	***7**	**7**
		2	*4*
Render, float and set on concrete including hacking	YS	***9**	**5**
		2	*4*
Render, float and set on expanded metal lathing	YS	***7**	**9**
		2	*5*
Gypsum plaster			
Render in cement-lime-sand (1 : 1 : 6) and set in gypsum plaster on brick walls and partitions	YS	***6**	**1**
		1	*11*
Render in gypsum fibred browning-sand (1 : 1½) and set in gypsum on concrete soffits including bonding coat	YS	***9**	**9**
		3	*8*
Render and set on expanded metal lathing including pricking up coat	YS	***9**	**3**
		4	*0*
Lightweight plaster			
Render and set in lightweight plaster on brick walls and partitions	YS	**7**	**6**
		3	*7*
Sundries			
Labour arris	FR		**5**
Make good plaster up to metal bead	FR		**2**

Bringing a building to life



It's there, it's built. A flesh of concrete and glass on skeleton of steel. To make it live, warming and cossetting its occupants, is the job of the heating engineer.

He doesn't start now, of course. Complex heating systems of today are designed when the building itself is on the drawing board. Erection and installation proceed as the building grows at the pre-arranged pace.

It's a problem of design, teamwork and timing, needing organization and experience. In fact, if it's a big job, it's more than likely that the whole thing was left in the hands of Haden—capable hands, thoroughly versed in the problems of bringing a building to life.

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technical section

PLASTERER—continued

Plaster board

		s	d
$\frac{3}{8}$-in. gypsum plaster lath fixed to softwood soffits finished to receive plaster	YS	**4**	**9**
		2	9
Gypsum board finish setting coat on last	YS	**4*	**6**
		1	2
$\frac{3}{8}$-in. gypsum wall board fixed to vertical studding and scrimming joints	YS	**5**	**10**
		3	2

Wall screeds

		s	d
$\frac{1}{2}$-in. cement and sand screed on brick walls to receive tiling	YS	**4**	**3**
		1	*5*

Plain face

		s	d
$\frac{1}{2}$-in. Portland cement and sand (1 : 3) plain face trowelled smooth on brick walls	YS	***6**	**11**
		1	*11*

Tyrolean rendering

		s	d
Render in cement, lime, sand (1 : 1 : 6) and finishing with three coats patent coloured mix preparations applied with hand operated machine	YS	***10**	**9**
		2	*8*

Sprayed " Limpet " asbestos

Approximate prices for sprayed " Limpet " asbestos on the following surfaces to the thickness shown for quantities of 1,000 yds. super. Normal pressed finish.

		s	d
New concrete soffits and beams	YS		
	$\frac{1}{2}$-in.	**14**	**5**
	$\frac{3}{4}$-in.	**19**	**8**
	1-in.	**21**	**9**
New structural steelwork	YS		
	$\frac{1}{2}$-in.	**16**	**6**
	$\frac{3}{4}$-in.	**21**	**9**
	1-in.	**23**	**10**
Extra over the above prices for coloured texture finish	YS	**3**	**5**

Wall tiling

		s	d
6-in. × 6-in. × $\frac{1}{4}$-in. glazed wall tiles set and jointed on prepared screed	YS		
Standard quality, white		***44**	**0**
Eggshell matt or glossy		***54**	**0**

PLUMBER

Market prices

		s	d
Sheet lead, $3\frac{1}{2}$ lb. and upwards, in quantities of 5 cwt. to 1 ton	C	*106	9
Copper sheeting, 23 gauge, in 1-ton lots	C	330	0
Zinc sheeting, 14 gauge, in 1-ton lots	C	130	0
Aluminium sheeting 20 SWG	C		
Super purity		522	8
Commercial quality		336	0

PLUMBER—continued

Cast iron rainwater and soil goods

		s	d
Medium weight pipe to BS 416 and BS 460 in 6 ft. lengths	No.		
	3-in.	*21	$10\frac{1}{2}$
	4-in.	*27	$11\frac{1}{2}$
Half round gutter in 6 ft. lengths	No.		
	4-in.	*10	9
	6-in.	*17	$7\frac{1}{2}$

The above are Standard-List prices plus $27\frac{1}{2}\%$

		s	d
Lead pipe in quantities of 5 cwt. to 1 ton	C		
	BS 602	*109	0
	BS 1085	*116	0
Polythene tubing, heavy gauge, in quantities of 500 to 999 ft.	100 FR		
	$\frac{1}{2}$-in.	*103	6
	$\frac{3}{4}$-in.	*141	6
	1-in.	*180	6
Steel tubes to BS 1387 medium weight galvanised	FR		
	$\frac{3}{4}$-in.	*0	$9\frac{1}{2}$
	1-in.	*1	$1\frac{1}{2}$
	$1\frac{1}{4}$-in.	*1	$5\frac{1}{2}$
	$1\frac{1}{2}$-in.	*1	$8\frac{1}{2}$

The above are Standard List prices less 36%

Galvanised malleable fittings.

		s	d
Bend	No.		
	1-in.	*3	0
	$1\frac{1}{4}$-in.	*4	7
	$1\frac{1}{2}$-in.	*6	6
Tee	No.		
	$\frac{1}{2}$-in.	*1	1
	$\frac{3}{4}$-in.	*1	6
	1-in.	*2	2
	$1\frac{1}{4}$-in.	*3	0
	$1\frac{1}{2}$-in.	*4	4

The above are Standard List prices less $17\frac{1}{2}\%$, less $6\frac{1}{4}\%$ plus 40%

		s	d
Copper tubes to BS 659	FR		
	$\frac{1}{2}$-in.		$11\frac{1}{2}$
	$\frac{3}{4}$-in.	*1	4
	1-in.	*2	$0\frac{1}{2}$
	$1\frac{1}{4}$-in.	*2	$5\frac{1}{2}$

The above are calculated on a basis price of 2s. $2\frac{1}{2}$d. per lb. plus diameter extras.

Measured rates

		s	d
Milled sheet lead	C		
Flat roofs		***193**	**0**
Gutters and flashings		***193**	**0**
24 SWG copper sheet	FS		
Flat roofs		**5**	**9**
Gutters and flashings		**5**	**9**
23 SWG copper sheet	FS		
Flat roofs		**6**	**6**
Gutters and flashings		**6**	**6**
14 gauge zinc	FS		
Flat roofs		**3**	**7**
Gutters and flashings		**3**	**7**
20 SWG super purity aluminium	FS		
Flat roofs		**5**	**4**
Gutters and flashings		**5**	**4**
20 SWG commercial quality aluminium	FS		
Flat roofs		**4**	**1**
Gutters and flashings		**4**	**1**

PLUMBER—continued

Rainwater gutters and pipes

Half round eaves gutter jointed and fixed to fascia with brackets:

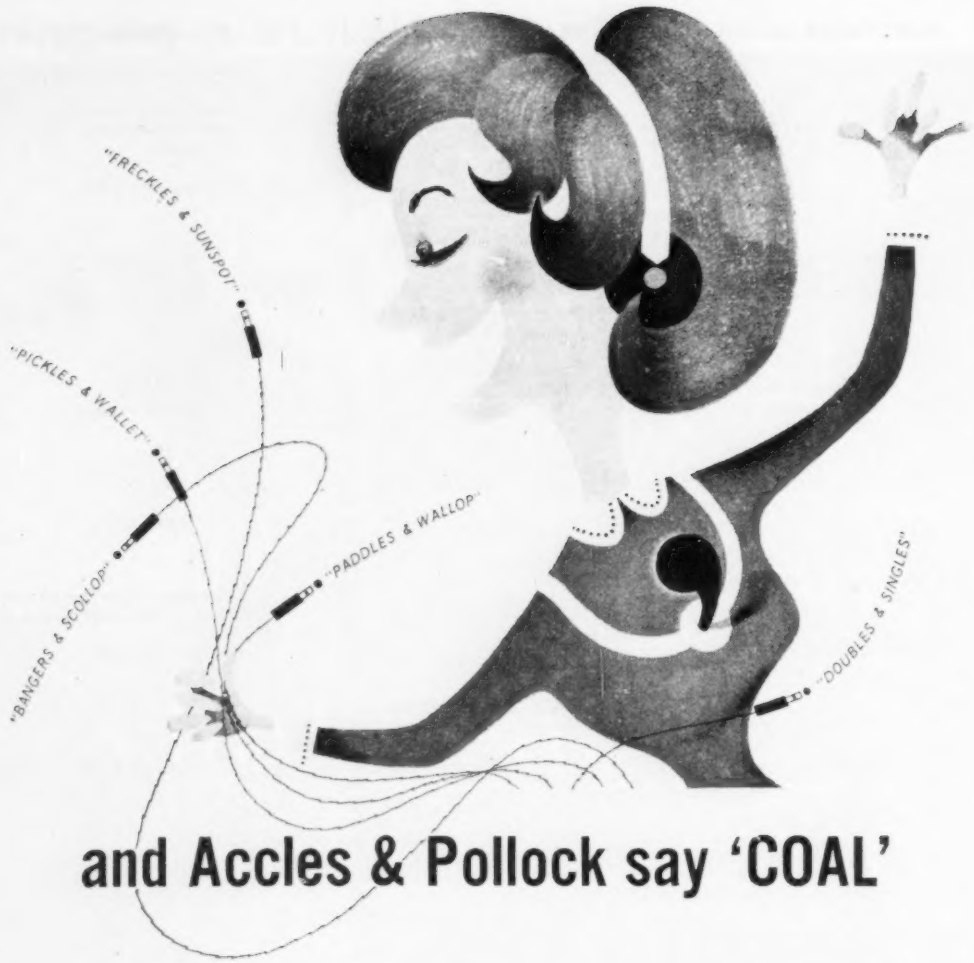
			s	d
Cast-iron, $\frac{1}{8}$-in.	FR			
	4-in.		***3**	**8**
			2	*4*
	6-in.		***5**	**4**
			3	*9*
Pressed steel, 18g.	FR			
	4-in.		***3**	**3**
			1	*11*
	6-in.		***4**	**4**
			2	*8*
Asbestos cement	FR			
	4-in.		***3**	**0**
			1	*7*
	6-in.		***4**	**3**
			2	*7*
Aluminium	FR			
	4-in.		**4**	**3**
			2	*11*

Rainwater pipes jointed and fixed to walls with pipe nails:

			s	d
Cast iron, $\frac{3}{16}$-in.	FR			
	3-in.		***6**	**2**
			4	*7*
	4-in.		***7**	**8**
			5	*10*
Pressed steel, 24g.	FR			
	3-in.		***4**	**7**
			3	*0*
	4-in.		**6**	**5**
			4	*7*
Asbestos cement	FR			
	3-in.		**3**	**10**
			2	*3*
	4-in.		**4**	**11**
			3	*1*
Aluminium	FR			
	3-in.		**5**	**7**
			4	*0*
	4-in.		**7**	**6**
			5	*8*

Soil and ventilating pipes

			s	d
Lead soil, waste and ventilating pipes fixed to walls with lead tacks at the following sizes and weights (lbs. per yd. run)	3-in.	15	***11**	**6**
			8	*1*
	4-in.	19	***16**	**0**
			9	*10*
Cast iron soil, waste and ventilating pipes with caulked joints fixed to walls with pipe nails	FR			
	3-in. heavy		***7**	**5**
			5	*4*
	4-in. heavy		***9**	**1**
			6	*8*
Asbestos cement soil, waste and ventilating pipes with socketed joints made in caulked neat cement fixed to walls with holderbats	FR			
	3-in.		**3**	**11**
			2	*4*
	4-in.		**5**	**0**
			3	2



and Accles & Pollock say 'COAL'

TO CHANGE a lump of stainless steel into a tiny tube ·011/·0115" o/d x ·005/·007" i/d, used for the manufacture of automatic knitting needles in the textile industry, is only one of the many miracles that Accles & Pollock create for science and industry at their works at Oldbury, Birmingham.

Behind this brilliant engineering know-how that will design and produce tubes of any size, any complexity, is the direction and impetus of a dynamic management that secures long-term advantages as well as immediate gain when making decisions. That's why Accles and Pollock choose *coal* to keep their boilerhouse at its efficiency peak. Their experience has proved that coal, mechanically stoked, *gives the maximum heat for the lowest cost:* and they know that there is no shortage of coal—the home produced fuel.

When the question of fuel for your factory is on the agenda, remember Accles & Pollock. Their choice is coal for a progressive and prosperous industry. Even if you get the name wrong, you get the decision right when you follow their example.

PROGRESSIVE INDUSTRY IS GOING FORWARD ON COAL

ISSUED BY THE NATIONAL COAL BOARD

Why Coal spells success for Accles & Pollock

Mr. W. E. Powell, fuel engineer, comments: "Our boilers were designed, primarily, for burning the slack grading of solid fuel. Following experiments into ultimate economies, however, it was decided to change to the better fuel of the 'bean' grading. Under test, it was found that solid fuel gave us excellent combustion conditions, at a challenging price per thousand pounds of steam. By making use of modern mechanical means of firing we are able to maintain strict control of operation.

The boilers are of the non-flue type, and when fitted with grit arresters they satisfy all local and national regulations governing grit and smoke densities.

Most fuels can be controlled to give economical generation on the level obtained by solid fuel, but the use of coal does not entail the provision of ancillary equipment so necessary to the use of other heating mediums.

The present boilers have been in existence some ten to twelve years, and during that period we have experimented with all available means towards obtaining the best from our equipment. All our tests bring us back to the use of the 'bean' size coal. Given this heating medium, the operators have no difficulty in maintaining the efficiency level nominated by us. That is why we shall continue to use coal at Accles and Pollock."

And here are some key facts and figures about the Accles & Pollock boilerhouse at Oldbury

Number of boilers	5 water tube
Method of firing	Chain grate stoker
Steam pressure	120 lbs. per sq. inch
Steam temperature	340° F.
Continuous max. rating	72,000 lb. per hour
Annual fuel consumption	20,000 tons of coal

technical section

PLUMBER—continued

Lead pipe to BS 602

Lead pipe at the following sizes and weights (lbs. per yd. run).

Supply pipe laid in trench (measured separately)

Size	FR	s	d
½-in.	7	**3**	**8**
		2	*8*
¾-in.	11	**5**	**5**
		4	*2*
1-in.	16	**7**	**8**
		6	*2*
1¼-in.	28	***12**	**10**
		10	*6*
1½-in.	35	***16**	**6**
		13	*1*

Supply pipe fixed to walls and ceilings

Size	FR	s	d
½-in.	7	**4**	**3**
		2	*9*
¾-in.	11	**6**	**2**
		4	*3*
1-in.	16	**8**	**5**
		6	*3*
1¼-in.	28	***13**	**7**
		10	*7*
1½-in.	35	***17**	**10**
		13	*2*

Distributing pipe fixed to walls and ceilings

Size	FR	s	d
½-in.	4	**3**	**2**
		1	*8*
¾-in.	5	**3**	**8**
		2	*1*
1-in.	7	**4**	**9**
		2	*11*
1¼-in.	9	**5**	**7**
		3	*9*
1½-in.	12	**7**	**3**
		5	*0*

Flushing and warning pipe fixed to softwood

Size	FR	s	d
¾-in.	4	***3**	**7**
		1	*6*
1-in.	5	***4**	**6**
		1	*10*
1¼-in.	6	***5**	**7**
		2	*4*
1½-in.	7	***6**	**1**
		2	*8*

Waste pipe fixed to softwood

Size	FR	s	d
1¼-in.	6	**5**	**7**
		2	*6*
1½-in.	7	**6**	**1**
		2	*11*

Joints to fittings

Size	No.	s	d
½-in.		**6**	**10**
		1	*11*
¾-in.		**7**	**7**
		2	*7*
1-in.		**8**	**2**
		3	*3*
1¼-in.		**8**	**8**
		3	*10*
1½-in.		**9**	**9**
		4	*9*

Extra for:

Bend

Size	No.	s	d
1¼-in.		***3**	**1**
1½-in.		***4**	**4**

Branch joints

Size	No.	s	d
½-in.		**8**	**9**
		1	*11*
¾-in.		**9**	**11**
		2	*7*
1-in.		**10**	**4**
		3	*3*
1¼-in.		**12**	**5**
		3	*10*
1½-in.		**13**	**11**
		4	*9*

PLUMBER—continued

Polythene tubing to BS 1972

Heavy gauge polythene tubing

Supply pipe laid in trench (measured separately)

Size	FR	s	d
½-in.		***1**	**7**
		1	*2*
¾-in.		***2**	**0**
		1	*7*
1-in.		***2**	**6**
		2	*1*

Supply or distributing pipe fixed to walls

Size	FR	s	d
½-in.		***2**	**5**
		1	*3*
¾-in.		***2**	**11**
		1	*9*
1-in.		***3**	**5**
		2	*2*

Galvanised steel tubing to BS 1387

Galvanised steel tubing with screwed red lead joints.

Supply pipe, heavy weight, laid in trench (measured separately)

Size	FR	s	d
½-in.		***2**	**10**
			10
¾-in.		***3**	**3**
		1	*0*
1-in.		***3**	**5**
		1	*5*
1¼-in.		***4**	**1**
		1	*10*
1½-in.		***5**	**3**
		2	*2*

Supply or distributing pipe, medium weight, fixed to walls

Size	FR	s	d
½-in.		***2**	**10**
			10
¾-in.		***3**	**3**
		1	*1*
1-in.		***3**	**5**
		1	*4*
1¼-in.		**4**	**0**
		1	*9*
1½-in.		***5**	**2**
		2	*1*

Extra for malleable iron fittings

Elbow

Size	No.	s	d
1-in.		**4**	**0**
		2	*0*
1¼-in.		**5**	**4**
		3	*1*
1½-in.		**6**	**7**
		4	*2*

Bend

Size	No.	s	d
1-in.		***5**	**7**
		3	*4*
1¼-in.		***8**	**0**
		5	*0*
1½-in.		***10**	**4**
		7	*2*

Tee

Size	No.	s	d
½-in.		***3**	**6**
		1	*2*
¾-in.		***3**	**11**
		1	*8*
1-in.		***4**	**8**
		2	*5*
1¼-in.		***6**	**1**
		3	*4*
1½-in.		***7**	**7**
		4	*9*

PLUMBER—continued

Copper tube

Copper tube at the following sizes and gauges

Supply pipe, BS 1386, laid in trench (measured separately)

Size	FR	s	d
½-in.	18	**1**	**11**
		1	*3*
¾-in.	17	**2**	**10**
		2	*1*
1-in.	16	***4**	**1**
		3	*1*
1¼-in.	16	***5**	**5**
		4	*2*
1½-in.	15	***7**	**0**
		5	*5*

Supply or distributing pipe, BS 659, fixed to walls

Size	FR	s	d
½-in.	19	**2**	**0**
		1	*1*
¾-in.	19	**2**	**8**
		1	*6*
1-in.	18	***3**	**8**
		2	*5*
1¼-in.	18	***4**	**7**
		2	*10*
1½-in.	18	***5**	**4**
		3	*6*

Extra for brass compression fittings, copper to copper

Coupling

Size	No.	s	d
½-in.		**5**	**4**
		3	*5*
¾-in.		**6**	**8**
		4	*2*
1-in.		**9**	**4**
		6	*2*
1¼-in.		**11**	**8**
		7	*11*
1½-in.		**16**	**0**
		11	*6*

Bend

Size	No.	s	d
½-in.		**6**	**8**
		4	*9*
¾-in.		**8**	**3**
		5	*9*
1-in.		**11**	**11**
		8	*9*
1¼-in.		**14**	**11**
		11	*1*
1½-in.		**24**	**4**
		19	*11*

Tee

Size	No.	s	d
½-in.		**9**	**9**
		6	*4*
¾-in.		**11**	**4**
		7	*4*
1-in.		**16**	**7**
		11	*11*
1¼-in.		**22**	**6**
		17	*3*
1½-in.		**33**	**9**
		27	*10*

Heat insulation

Asbestos plastic insulation, wired, trowelled hard and smooth and painted

Size	FR	s	d
½-in.		**4**	**3**
¾-in.		**4**	**4**
1-in.		**4**	**9**
1¼-in.		**5**	**1**
1½-in.		**5**	**5**

Sectional insulation with canvas sheeting and metal bands and painted

Size	FR	s	d
½-in.		**4**	**8**
¾-in.		**4**	**10**
1-in.		**5**	**3**
1¼-in.		**5**	**6**
1½-in.		**5**	**10**

technical section

GLAZIER

Market prices

		s	d
O.Q. sheet glass cut to size	FS		
24 oz.		*1	0⅛
32 oz.		*1	7½
¼-in. polished plate and float glass, glazing quality in plates not exceeding:	FS		
2 ft. super		4	1½
5 ft. super		5	0¼
45 ft. super		6	9
100 ft. super		6	9
⅛-in. white figured rolled and cathedral glass	FS		
Group one		1	3¾
Group two		1	9¾
Group three		1	8½
¼-in. Georgian polished wired glass	FS	6	10

Attention is drawn to reduction in certain glass prices offered by manufacturers for acceptance of specified minimum quantities of one size and substance delivered to one address at one time

Measured rates

Glazing to wood

		s	d
Glazing with putty in squares	FS		
24 oz. O.Q. sheet glass		*1	7
32 oz. O.Q. sheet glass		*2	2
⅛-in. rolled glass, group one		*1	9
¼-in. rough cast glass		*2	3
Prismatic glass		2	9
¼-in. wired glass		*2	6
¼-in. Georgian polished wired glass		*9	0
¼-in. polished plate glass (glazing quality) in squares			
2 to 5 ft. super		7	0
5 to 45 ft. super		*8	7

Glazing to metal

Add to above rates 1d. per ft. super

Sundries

		s	d
Hacking out broken sheet glass	FS	1	3
Black ribbon velvet and bedding to edge of glass	FR		8

Double glazing

		s	d
Insulight units of two skins of glass with lead spacers and glazing with mastic or beads (supplied). In panels 10 to 25 ft. super	FS		
32 oz. sheet		10	11
¼-in. polished plate		22	3

Patent glazing

		s	d
Patent glazing with ¼-in. Georgian wired cast glass suitable for 8-ft. spans	FS		
Rolled steel lead capped bars		*4	10
Aluminium alloy bars		*4	9

PAINTER

Market prices

		s	d
Ceiling distemper	C	30	0
Washable distemper	C	*130	0
General purpose priming	Gal.	36	6
Emulsion paint	Gal.	45	0
Hard gloss paint:	Gal.		
Undercoat		46	0
Finishing		46	0

Measured rates

On walls and ceilings

		s	d
Twice whiten plastered ceilings	YS	1	6
			3
Two coats distemper on plastered walls or ceilings	YS	*2	4
		1	*1*
Two coats distemper on fair-faced brick or concrete walls	YS	*2	10
		1	*4*
Two coats emulsion paint on walls or ceilings	YS	2	11
		1	*8*
Prepare, prime and apply one coat oil colour on plastered walls	YS		
Basis price		3	8
		1	*6*
Add for each additional coat		1	9
			10

On metal

		s	d
Prepare, prime and apply one coat oil colour			
General surfaces	YS		
Basis price		*3	9
		1	*6*
Add for each additional coat		1	8
			10
Windows in squares	YS		
Basis price		*5	3
			9
Add for each additional coat		2	2
			5
Bars, angles, etc., not exceeding 3-in. girth	YR		
Basis price			6
			2
Add for each additional coat			3
			1
Small pipes	YR		
Basis price		1	0
			3
Add for each additional coat			5
			2
Large pipes	YR		
Basis price		2	0
			6
Add for each additional coat			10
			3
Prepare, prime and apply one coat heat-resisting paint on heating surfaces of radiators	YS		
Basis price		*4	4
		1	*4*
Add for each additional coat		1	11
			8

PAINTER—continued

On wood

		s	d
Knot, prime, stop and apply one coat oil colour			
General surfaces	YS		
Basis price		*4	2
		1	*8*
Add for each additional coat		1	8
			10
Margins of treads and risers	YS	4	10
Basis price		*1*	*8*
Add for each additional coat		1	11
			10
Work not exceeding 3-in. girth	YR		
Basis price			7
			1½
Add for each additional coat			2½
			1
Work 3-in. to 6-in. girth	YR		
Basis price			10
			2½
Add for each additional coat			4
			1½

Stain and varnish

		s	d
Prepare, size, stain and twice varnish on woodwork			
General surfaces	YS	*4	7
		1	*8*
Work not exceeding 3-in. girth	YR		7½
			1½
Work 3-in. to 6-in. girth	YR		11
			2½

Oiling and polishing

		s	d
Twice oiling hardwood with linseed oil			
General surfaces	YS	*2	8
		1	*1*
Work not exceeding 3-in. girth	YR		3
			1
Work 3-in. to 6-in. girth	YR		4½
			1½
Staining and wax polishing general surfaces of hardwood	FS	1	1
Staining bodying-in and fully French polishing on general surfaces of hardwood	FS	2	8

Papering

		s	d
Preparing and sizing walls and hanging plain lining paper	Piece	11	2
		3	*3*
Hanging wall paper, p.c. 10s. per piece	Piece	*21	3
		12	*9*
Hanging border, p.c. 1s. per yd.	YR	1	9
		1	*3*

SfB No. B
UDC No. 651:69

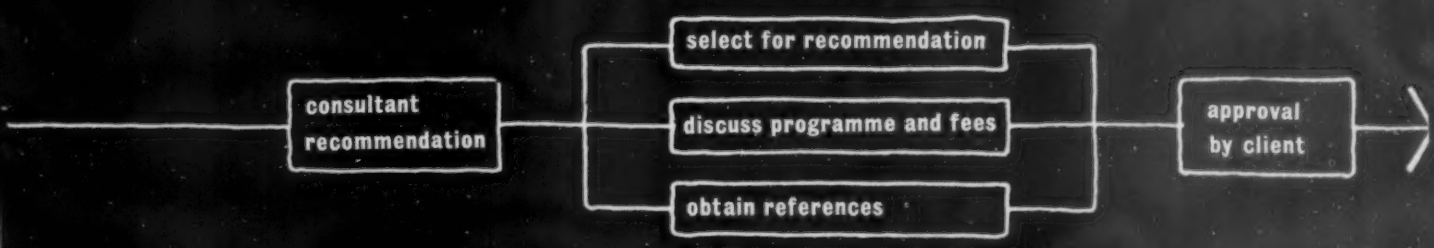
Contract administration

consultant recommendation 7

On minor works an architect should be able to cope with surveys, estimates, and structural calculations, services, and settlement of final accounts. To attempt to deal with these on a large contract is a mistake. The architect's job under these circumstances is to recommend to the client the most suitable consultant for the work, to be able to check the work, to be able to work well and simultaneously with the consultant throughout the contract, and to trust and act upon his advice. In its simplest way you, as a person with a working knowledge of the subject, are employing on the client's behalf a man whose specialist knowledge will produce a sounder and more economical result than the one which you could give.

In recommending consultants satisfy yourself that they are fully qualified, and the best people in all circumstances to do the work—preferably from personal knowledge of previous work they have carried out, or the recommendation of a person whose opinion you respect. If your client suggests a consultant who may be unknown to you, satisfy yourself that he fulfils all the conditions you look for in making recommendations of your own.

After making your final selection, discuss the programme and work in general with each, and make your recommendations to the client with all the relevant information on the scale of fees on which the consultants are prepared to carry out the work. Appointment should be made as soon as these are approved by the client.



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Contract administration

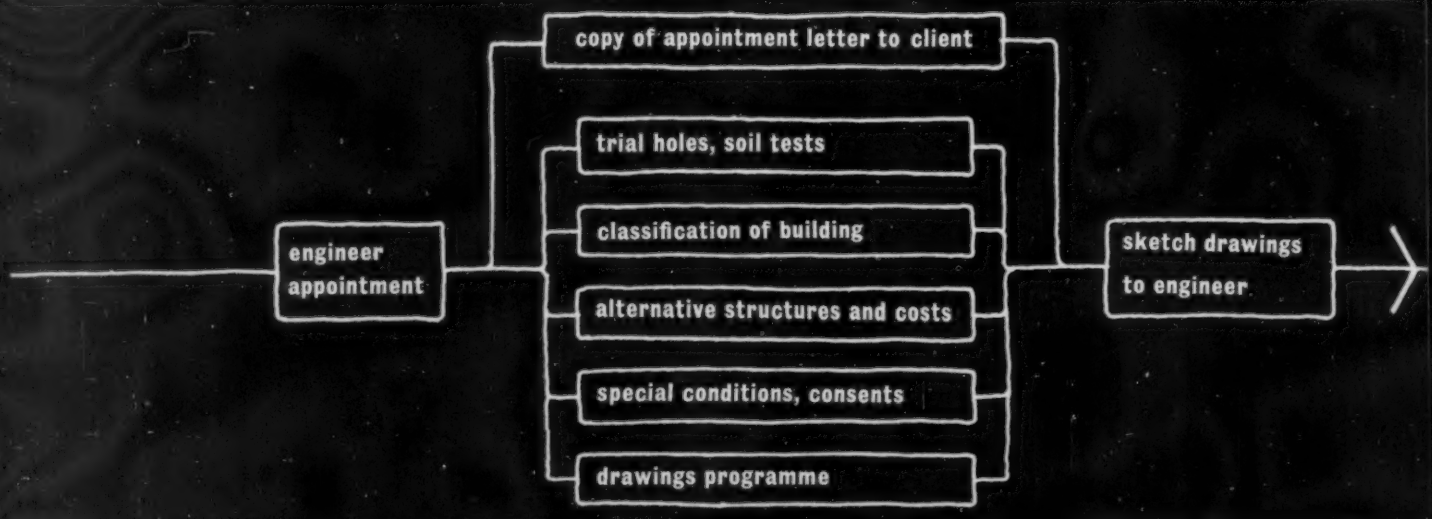
engineer appointment 8

Technically the client should appoint the engineer, but he may require you to do so on his behalf. When making the appointment confirm the terms by letter, including the basis for fees. The engineer's accounts should be submitted through your own office. A copy of the letter of appointment should be sent to the client for his records.

Arrange an early meeting with the engineer to discuss basic design proposals and include the following points:—

1. Soil tests, position of trial holes on the site, and what arrangements should be made for boring these.
2. Materials and general construction relative to the fire and loading classification of the building.
3. Alternative types of structural system within the general conditions and their relationship with mechanical and other services.
4. Relative costs of alternative types of structural systems.
5. Any consents which the engineer should deal with including submission of calculations to local authorities, etc.
6. Deliveries of materials.
7. Any special plant, access to site, or site restrictions.
8. His own programme for the work and liaison between his office and yours.

Arrangements should be made at this stage for an illustrated report prepared by the engineer covering these points, which will accompany the architect's report when submitting design proposals to the client. It should be borne in mind that where one system is being recommended by architect/engineer as most suitable for design or structural reasons, whether lowest cost or not, the principles behind its selection should be made clear in the report.



SfB No. B

UDC No. 651:69 J

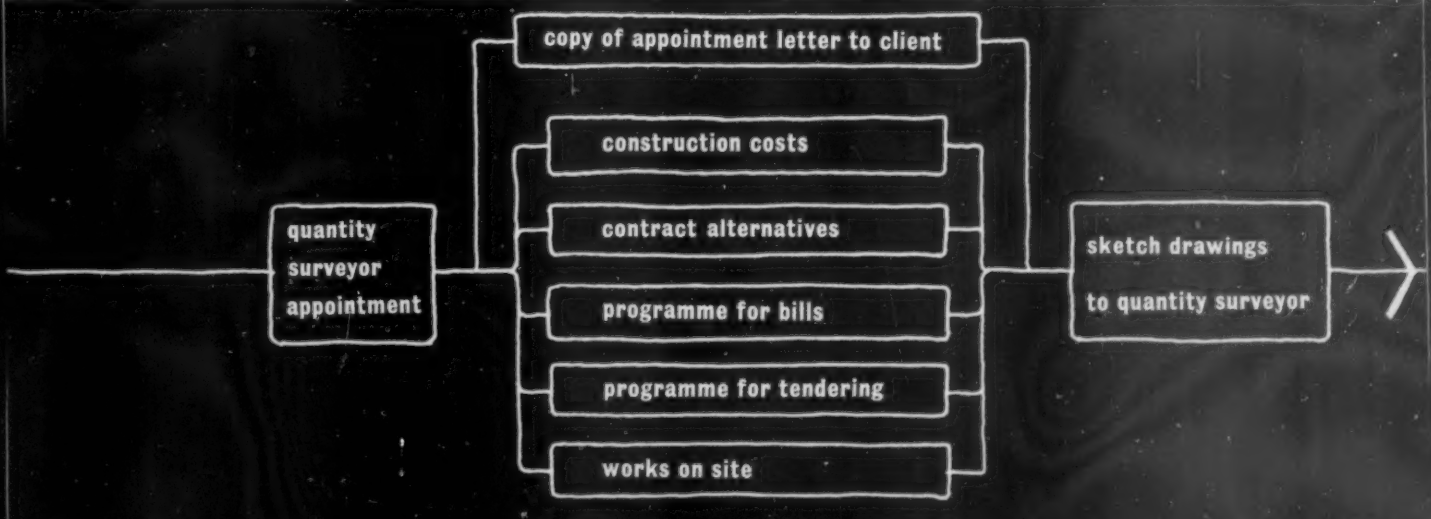
Contract administration

quantity surveyor appointment 9

The appointment of the quantity surveyor, as with the appointment of the engineer, is made either directly by the client, or by you on the client's behalf. The quantity surveyor is appointed to act on the client's behalf in ultimately keeping the contract under accurate financial control.

Discuss a cost plan related to basic design proposals and arrange for the quantity surveyor to submit a report to accompany your report and design proposals to the client. Your discussion should cover the following:—

1. Cost of comparative methods of construction in respect of the current materials and labour costs.
2. The relative merits of different types of contract from a financial point of view according to the character of work and construction methods under consideration.
3. The time the quantity surveyor will require for the preparation of his bills of quantities, and what form these should take.
4. The date for submission of this document to contractors for competitive tender or an estimate as the basis of a negotiated contract.
5. The time required for negotiation either with the contractor or the client between submission of tender or estimate and placing of contract.
6. The method and period of measurement for works as the contract proceeds and the measurement of variations to the contract.
7. The method of checking claims, invoices, wages and time sheets etc., submitted by the contractor when application is made for payment under the contract.
8. The form and period for the issue of statements of interim account for payment due to contractors throughout the contract.
9. The form for the statement of final account to be agreed with the contractor on behalf of the client.



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UDC No. 651:69

Contract administration

services consultants 10

Services consultants are necessary where the work is of a complex nature—do not let these overlap the technical service of normal sub-contract items in the building which will be organised within the structure as a matter of course.

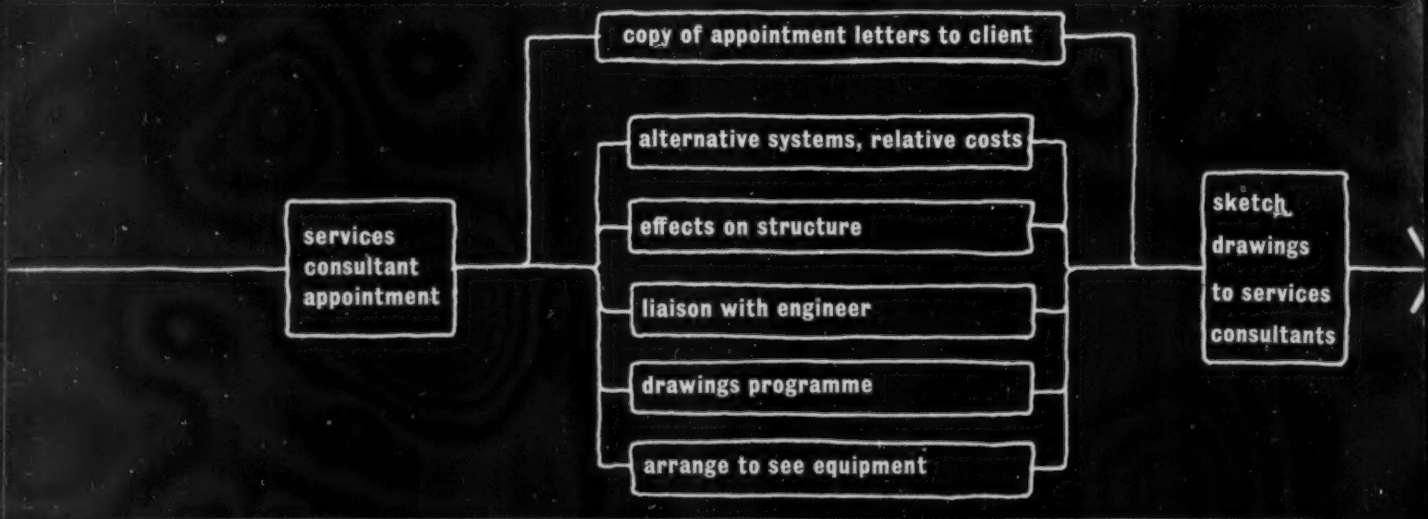
Depending upon the scope of the work, early appointment of these consultants may be necessary as they will be required to advise generally on all items where specialist knowledge of the subject will have an effect on the ultimate shape and character of the building. They should also be available to advise on the relative costs of alternative methods of carrying out these parts of the work.

Many items will affect the structural systems under consideration and close liaison during discussions on the various alternatives should be maintained between the services consultants and engineer in order that all ducts or components can be incorporated and form an integral part of the structural system.

Such items as those listed below should be carefully considered in the light of your own knowledge and the importance of installations relative to your client's requirements.

Heating.
Ventilation.
Air Conditioning.
Hot Water Service.
Electrical installation or communication.
Refuse disposal system.
Cash distribution system.
Other mechanical or specialist services.

If you feel that your client would be better served in any or all of these matters by an expert you must make the recommendation as part of your own services.



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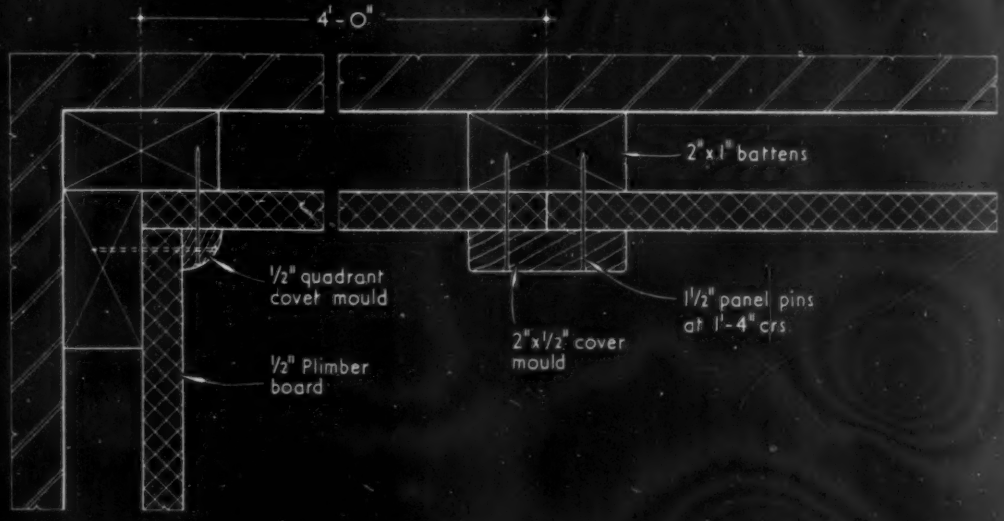
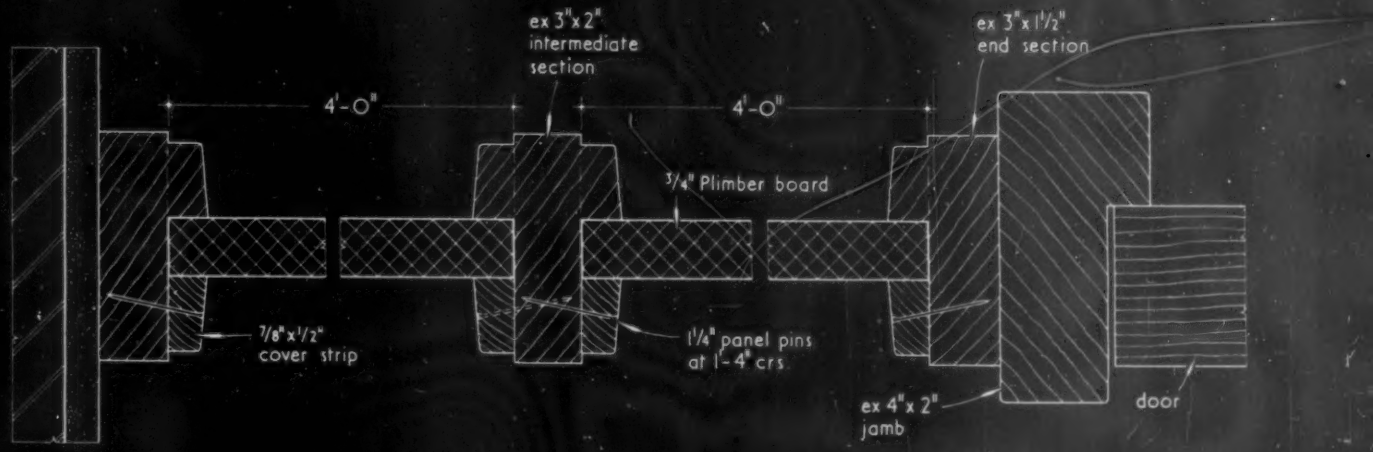
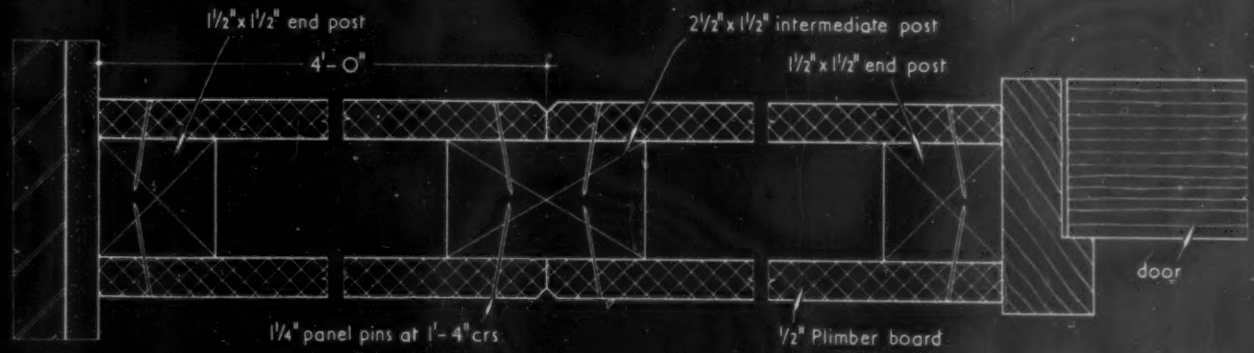


WALL LINING.



timber-framed
SINGLE-SKIN PARTITION.



on studs
DOUBLE-SKIN PARTITION.

PLIMBER WOOD CHIPBOARD: WALL LINING AND PARTITIONING. Manufacturer: British Plimber Limited.

15.C11 ·PLIMBER· WOOD CHIPBOARD: WALL LINING AND PARTITIONING

This Sheet is one of a series on Plimber resin-bonded wood chipboard and deals with its use for lining and partitioning. Other Sheets in the series deal with its properties, its application for flooring, roofing and general joinery and also with decoration of the boards.

Material

Plimber wood chipboard is made by a three-layer process using softwood chips finely milled to a uniform size and bonded with urea formaldehyde synthetic resin. It is manufactured in accordance with the standards of quality required by B.S.2604: 1955. It has great strength and its rigidity commends it for lining and partitioning for which a light stud framework at 4 ft. 0 in. centres is all that is required. Plimber is a constructional rather than an insulating board: its insulating properties are similar to those of timber of the same density.

Sizes

The maximum size as manufactured is 16 ft. 0 in. by 4 ft. 0 in. but the standard size normally in stock with timber or builders' merchants is 8 ft. 0 in. by 4 ft. 0 in. It is available in ½-in. and ¾-in. thicknesses.

Weight and Density

The boards weigh 30 oz. and 45 oz. per sq. ft., respectively, for ½-in. and ¾-in. thicknesses. Their density is 45 lb./cu. ft.

Fixing of Wall Lining

Vertical battens should be plugged to the wall at 4 ft. 0 in. to 4 ft. 1 in. centres depending on the type of cover strip to be used at the joints between boards. The drawing on the face of the Sheet shows a typical lining method using ½-in. Plimber and 2 in. by 1 in. battens, the Plimber being held by pinned timber cover strips with quadrant beads at the corners. Additional insulation can be provided if required by placing glass silk, rockwool or similar between the wall and the Plimber boards. The battens should be creosoted softwood and where there is a possibility of dampness it is recommended that the inner surface of the Plimber boards should be treated with bituмastic paint, primer or any other waterproofing material.

Fixing of Partitioning

The only framing required is that necessary for holding the Plimber boards in position. The drawing on the centre face of the Sheet shows a partition of ¾-in. board supported by 3 in. by 2 in. rebated vertical posts into which the boards are held by pinned beads. Standard door and glazing sections can be easily included in the partition.
The drawing on the lower face of the Sheet shows a double-skin partition for use where a higher degree of heat and sound insulation is required than that afforded by the single partition described above. The Plimber boards are supported by 2½ in. by 1½ in. vertical studs, to which they are pinned.

Finish

The face of plain Plimber boards should be primed and may then be decorated with any type of oil- or water-bound or emulsion paint: they should not be plastered.
Plimber boards can also be obtained veneered in oak, mahogany or any other wood required: they are supplied unpolished.

Further Information

The manufacturer maintains a technical advisory department available to answer questions dealing with details of construction and decoration of Plimber boards.

Compiled from information supplied by:

British Plimber Limited
Address: Dovers Corner, New Road, Rainham, Essex.
Telephone: Rainham 5262

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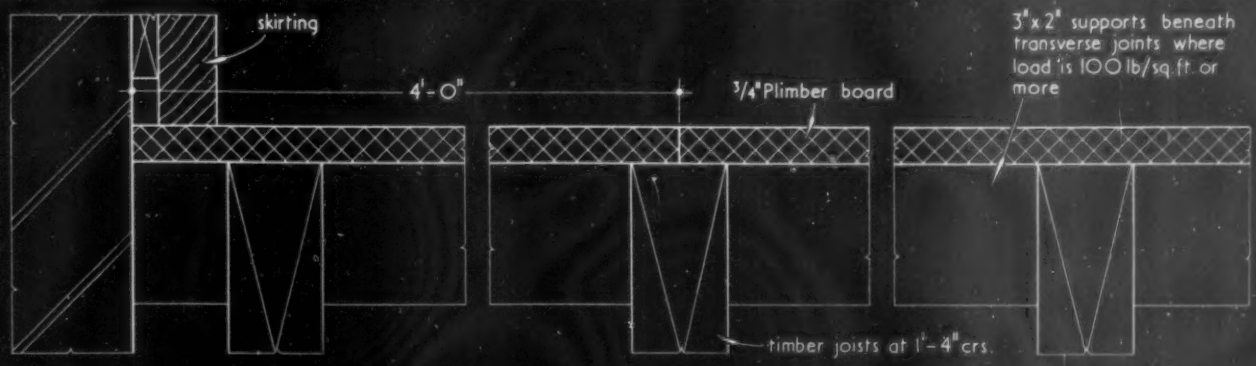
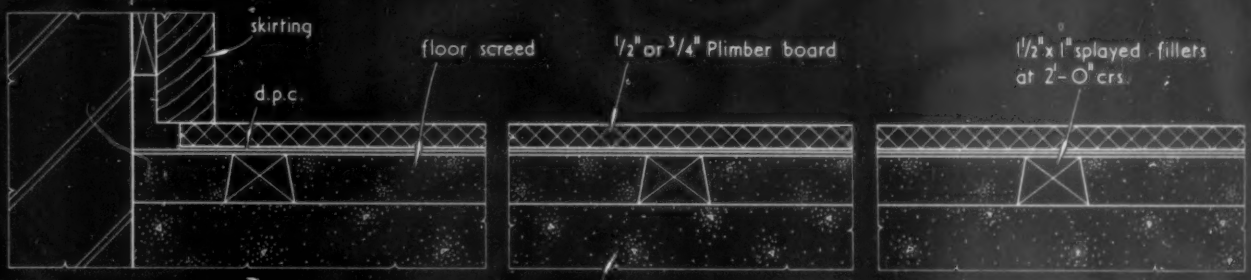
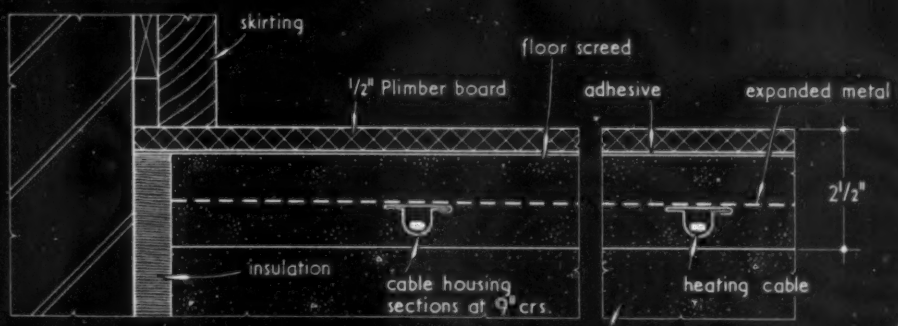


timber joist floor

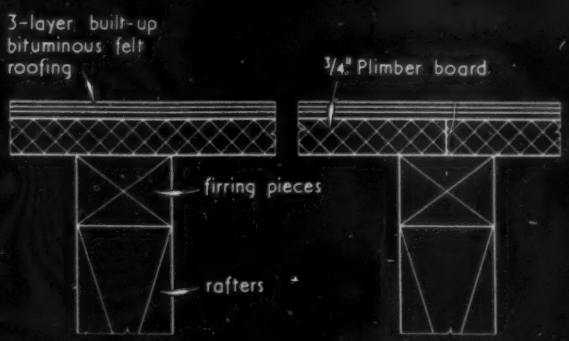


solid floor

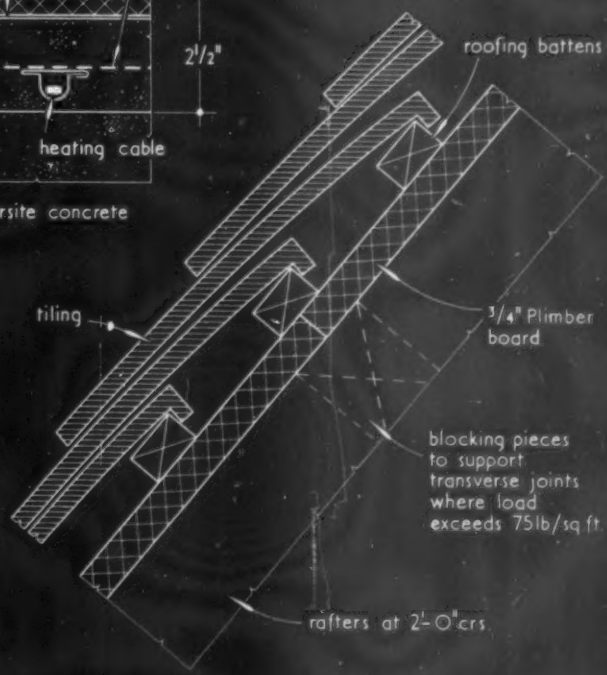


heated solid floor (Panelec system)

TYPICAL FLOORING DETAILS



flat roof



pitched roof

TYPICAL ROOFING DETAILS

PLIMBER WOOD CHIPBOARD : APPLICATIONS IN FLOORING AND ROOFING. Manufacturer : British Plimber Limited.

15.C12 ·PLIMBER· WOOD CHIPBOARD: APPLICATIONS IN FLOORING AND ROOFING

This Sheet is one of a series on Plimber resin-bonded wood chipboard and deals with its uses in flooring and roofing. Other Sheets in the series deal with its properties, its application for lining and partitioning and general joinery and also with decoration of the boards.

Floors

Plimber boards provide a hardwearing surface for industrial and domestic flooring. They can be used as a base for tiles, carpets, linoleum or any other type of floor covering, or they can be filled, sealed and waxed to provide a finished floor surface. They are rapidly laid with the minimum number of joints and are stable. The drawings on the face of the Sheet show applications as a floor finish to a timber joist floor, a solid floor and an electrically-heated solid floor. The following specifications should be used where appropriate.

Timber Joist Floors: Softwood joists to be laid at 1 ft. 4 in. centres to receive ¾-in. Plimber boards, with the 4 ft. 0 in. dimension at right angles to the run of the joists. Where the distributed floor loading is 100 lb./sq. ft. or more the floor to be strengthened by spiking 3 in. by 2 in. minimum softwood noggings below *all* joints at right angles to the joists. Boards to be fixed with 2-in. cut clasp or lost-head nails at 1 ft. 0 in. minimum centres and not closer than ½ in. from the edge of the board. All edges to be butted flush before fixing. Access traps to services to be formed where required by cutting panel to size and fixing on softwood carcasing with brass cups and screws (alternatively, hinging and fitting with sunk handle can be specified).

Solid Floors: Lay to concrete floor at 2 ft. 0 in. centres creosoted splayed softwood fillets (plugs) 1½-in. wide and equal in thickness to, and set in, the finished floor screed. At ground floor levels the Plimber boards to be protected from rising damp by covering screed with a layer of bituminised felt or waterproof building paper, before laying boards.* Use ½-in. (¾-in.) Plimber and fix with countersunk 1-in. (1¼-in.) No. 8 gauge screws at 2 ft. 0 in. centres.

Existing Boarded Floors: Where Plimber is used to cover worn boarded floors, the specification should read as follows:

Nail down all loose boards, punch in protruding nail heads and cover with ½-in. Plimber boards fixed with 1¼-in. panel pins at 1 ft. 0 in. centres (alternatively, " screwed with 1¼-in. countersunk screws at 2 ft. 0 in. centres ").

As an alternative to screwing to fillets or plugs, the Plimber can be secured direct to the concrete with the rivet-gun using 1¼ in. (1½ in.) rivets with medium (high) charges, rivets to be at 2 ft. 0 in. centres in each direction.

Heated Solid Floors: ½-in. Plimber is recommended for laying over a screed carrying an electric floor-heating system, whether it is solid-embedded or rewirable. It is essential that the boards be in perfect, uniform contact with the screed over the entire floor area therefore they should be laid with an adhesive similar to that used for laying wood blocks. Laying can be simplified by cutting the boards to 4-ft. or 2-ft. squares. The drawing on the face of the Sheet shows a typical rewirable system manufactured by Panelec Heating Division of British Insulated Callender's Cables, Limited, with Plimber boards providing a surface finish.

Finish and Maintenance: Where Plimber boards have been laid as a floor finish, they should be protected from plaster, paints and foot traffic as far as possible. When all other trades have finished work, the surface should be sanded clean, as necessary, and filled before staining or clear-sealing as desired. The Plimber floor should be subsequently maintained with a resin-emulsion polish. When it has been properly sealed it can be mopped down, but scrubbing with soap and water is not advisable.

* This clause to be omitted where d.p.c. is incorporated within the solid floor.

Roofs

Plimber boards can be used as a base for any type of roof covering that is suitable for application to softwood boarding on timber joists. It can also be used as a roof lining to exclude draughts and reduce heat losses. As Plimber can be obtained up to 16 ft. 0 in. by 4 ft. 0 in. in size it can be quickly laid with a minimum number of joints. The drawings on the face of the Sheet show its application to a flat roof, with built-up bituminous roofing, and a pitched roof finished with tiles.

Before and during construction care must be taken to ensure that the boards are protected from the rain and from the absorption of moisture from any other source. Where the roof design or site conditions are such that Plimber boards cannot be kept dry before or during construction, a ¼-in. gap should be allowed at all butt joints between the boards. Assuming that the joists are laid at 2 ft. 0 in. centres and that the designed load capacity exceeds 75 lb./sq. ft., 3-in. by 2-in. minimum noggings must be spiked to the joists below all joints in the Plimber boards, at right angles to the joists.

The following clause should be inserted when specifying the laying of Plimber boards in roofing.

¾-in. Plimber boards to be laid direct to joists or to firring pieces, with 4-ft. dimension at right angles to run of joists, and fixed with 2-in. cut clasp or round-head nails at 1 ft. 6 in. centres and not closer than ½ in. from the edge of the board. All edges to be butted flush before fixing.

Finish: The finishes applied to Plimber boards in roofing should conform to the standard practice for softwood boarding. The following is a typical specification clause for finishing a roof with mineral-surfaced bituminous felt.

Cover all butt joints with scrim cloth or other approved material; thereafter supply and fix 3-layer built-up roofing. First layer to consist of 60 lb./24 sq. yd. self-finish bituminous felt securely sealed to roof deck with hot bitumen applied at 3 lb./sq. yd. Side joints overlapped 3 in. and end joints 6 in. Second layer as first, applied to first in similar manner. The third layer to consist of 80 lb./12 sq. yd. mineral-surfaced felt (colour green) applied to second, all as previously described. All layers to break joints. Allow for all welted drips at eaves and verge extremities in mineral-surfaced felt (colour green). All skirtings at vertical abutments in same material.

Further Information

The manufacturer maintains a technical advisory department available to answer questions dealing with details of construction and decoration of Plimber boards.

Compiled from information supplied by:

British Plimber Limited.
Address : Dovers Corner, New Road, Rainham, Essex.
Telephone : Rainham 5262.

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PERGOLA: BEACH AT VOULIAGMENI, ATHENS

P. A. Sakellarios, E. Vourekas and P. Vasiliades, architects (material supplied by G. Urégian)

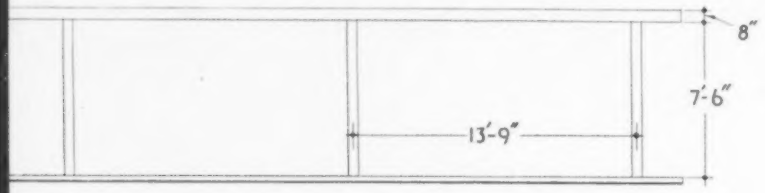
This pergola shows an interesting method of obtaining an even, small mesh pattern of light and shade. Note the careful detailing of the bamboo panels to prevent sagging.

working detail

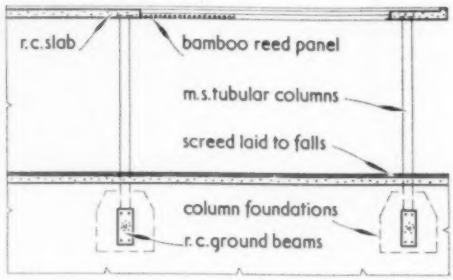
COVERED WAYS AND CANOPIES: 33

PERGOLA: BEACH AT VOULIAGMENI, ATHENS

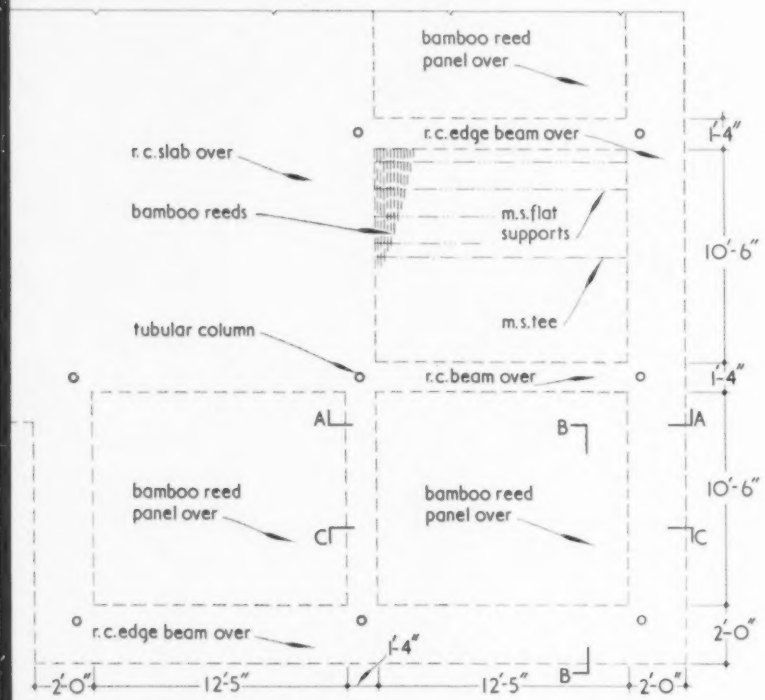
P. A. Sakellarios, E. Vourekas and P. Vasiliades, architects (material supplied by G. Urégian)



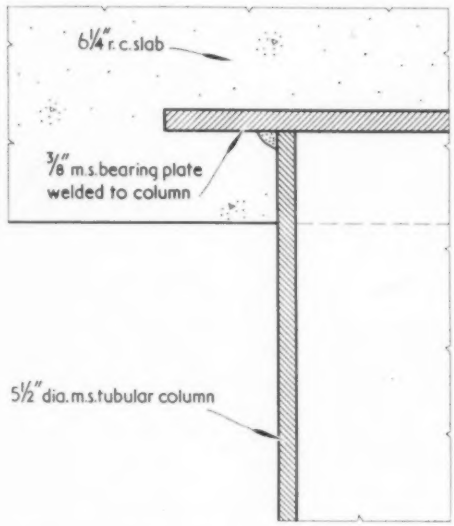
ELEVATION. scale 1/8"=1'-0"



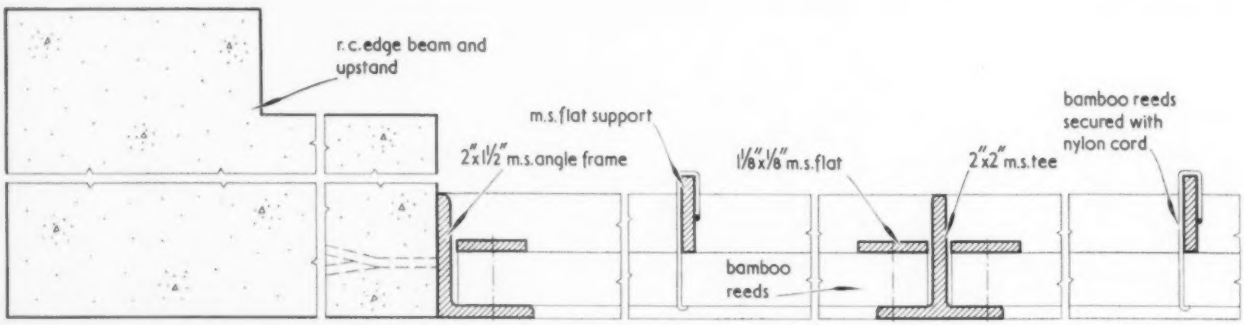
SECTION A–A. scale 1/8"=1'-0"



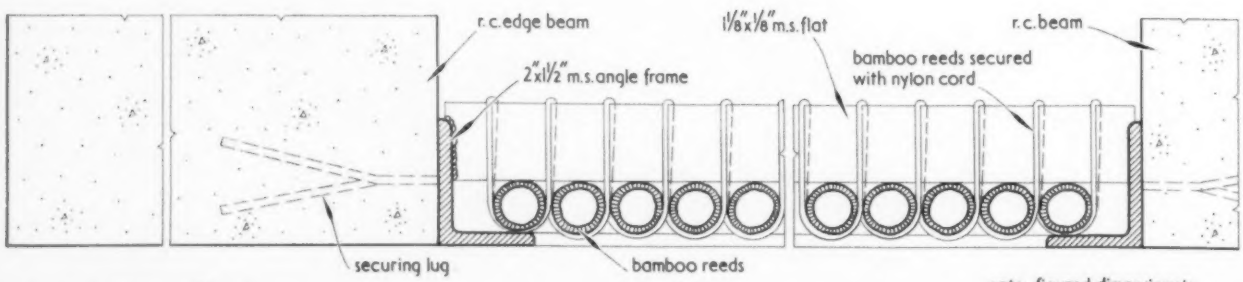
PART PLAN. scale 1/8"=1'-0"



DETAIL AT COLUMN HEAD. scale ⅜ full size

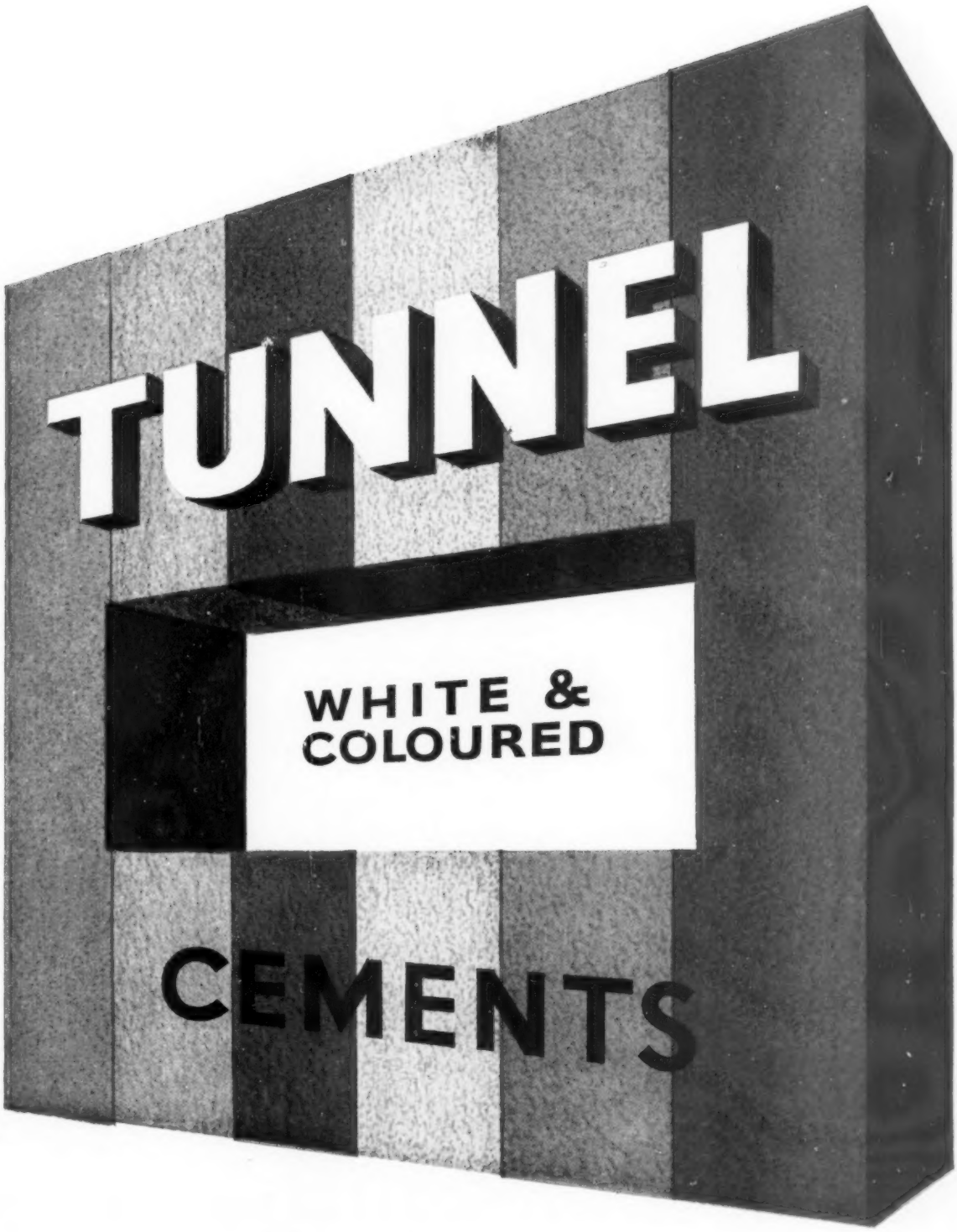


DETAIL AT B–B. scale ⅜ full size



DETAIL AT C–C. scale ⅜ full size

note: figured dimensions in feet and inches are approximate



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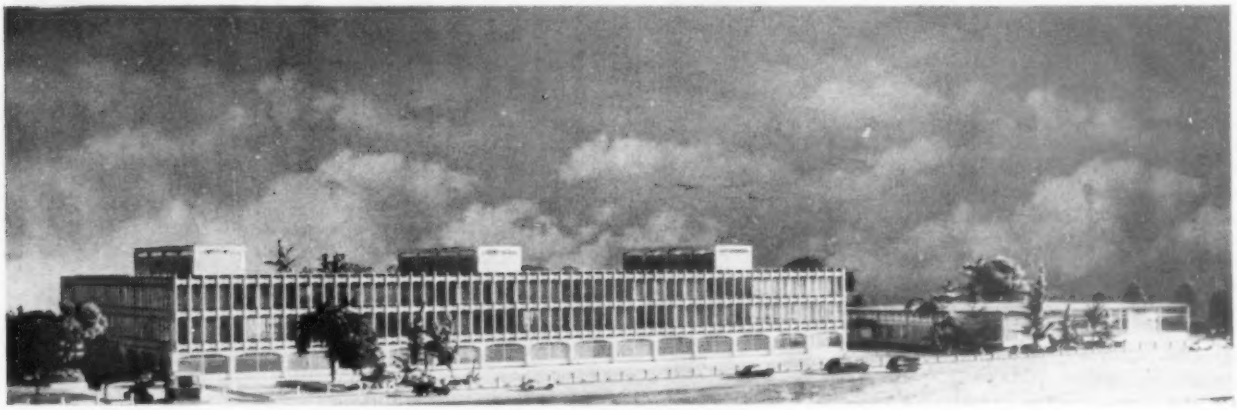
Office Building

This project, which has just started on site at Walton-on-Thames, is an interesting pointer to current trends not only because the clients, Birds Eye Foods Ltd., have adopted the policy of decentralisation by having these new head offices in the outer London suburbs, but because they have set out with the architects, Sir John Burnet, Tait & Partners, to provide a prestige building with a very high standard of working conditions. The plan shape, a rectangular block, with two internal courts, has been largely determined by the aim of providing good natural lighting throughout, with no-one working more than about 15 ft. from the external windows. This high level is matched by the artificial lighting, which will provide 35 lumens per sq. ft. At the same time full air conditioning has been adopted, supplied by a high velocity system feeding special induction units under the windows. The windows will be sealed, but each unit will have a variable control to allow a measure of personal preference in the different offices. A 5 ft. 3 in. planning module has been adopted throughout, with no internal columns, to facilitate the use of demountable partitions, which it is hoped will provide a suitably high standard of sound insulation. For sun control, vertical venetian blinds will be used. Considerable attention has been given to the siting and landscaping of the building. The layout will include a pool which will run the full length of the road frontage of the building immediately under the ground floor windows. The car park has been placed unobtrusively at the rear of the site.

The building will have an area of about 110,000 sq. ft. at a cost of just over £10 per sq. ft., including roughly £2 per sq. ft. for the air conditioning. These figures do not include the single-storey refectory block on the right of the main building (below), which will be carried out at a later stage. The structural consultants are Bylander, Waddell & Partners, the quantity surveyors Oswald E. Parratt & Partners, and the landscape architect Philip Hicks.



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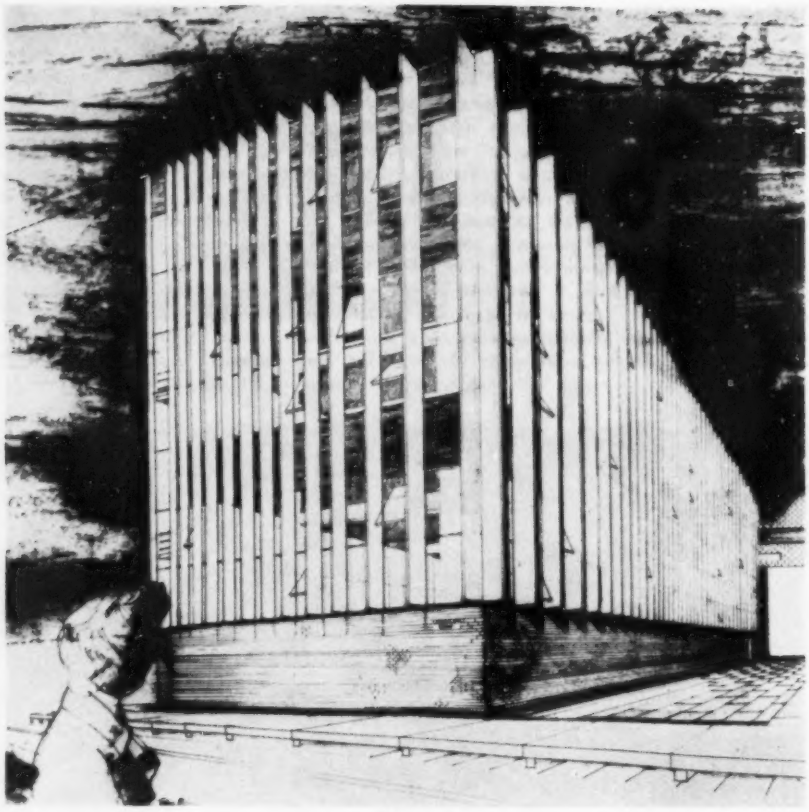
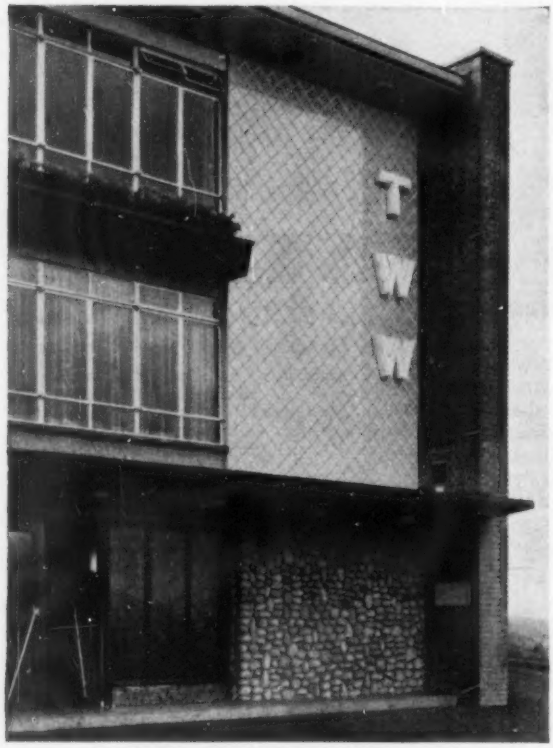


This extension to a printing works at Leeds, now under construction, has been designed by J. H. Napper & Partners. One of the main features of this design is the introduction into the external window walling of large vertical fins in pressed metal as mullions at about 3 ft. centres. Their purpose is to permit a high level of natural lighting without excessive sun or sky glare. The scheme includes a plenum plant on the roof, which will provide up to six air changes per hour



Devon Wall Tiles were used for the exterior of this T.W.W. Studio at Bristol

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Architects: Treadgold and Elsey, F/F. R. I. B. A., A. A. Dipl.

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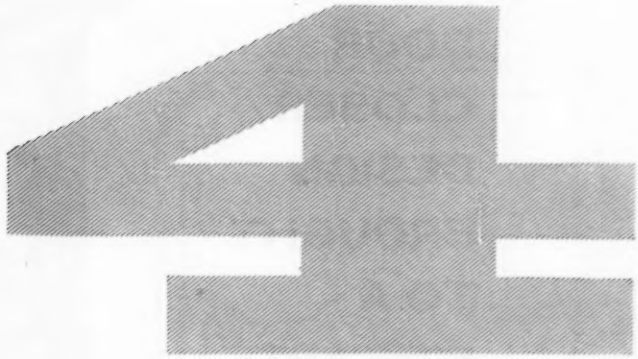
THE LOGICAL USE OF COLOUR IN BUILDING



Changes of chroma saturation or purity with intensity of illumination

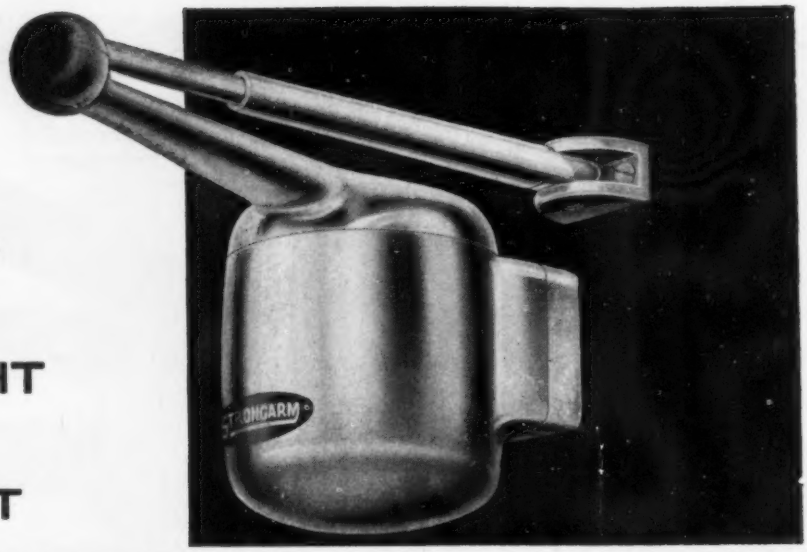
The effect of increasing (or decreasing) light intensity upon the chroma, saturation or purity of a colour is considerable. At the threshold of colour (phototropic) vision, all hues except red evoke only grey (or achromatic) sensations.

As the intensity is increased, and the colour sensation becomes conscious, the saturation or purity increases. However, the luminance required to produce maximum purity varies in different parts of the spectrum, being least in the purples, blues and reds, and highest in the yellows, yellow-green and green hues. To put it another way, the blues, reds and purples, which usually evoke a sensation of high purity, appear most saturated at relatively low luminance, whilst the yellow greens and yellow, which evoke a sensation of low degree of purity, appear most saturated at high intensities.

If the intensity of illumination is raised above the optimum then the saturation will fall off again very rapidly and at very high abnormal intensities of illumination the colours will become grey (uncoloured) again.

Another effect of high light intensity is to extend, even with older people, colour sensation to the periphery of the eye. With the wide range of intensities of illumination both daylight and artificial, available at the present day, these effects are often seen in modern buildings and they can be used successfully to improve decoration when the causes are understood.

This is one of a series by Goodlass Wall and Co. Ltd., paint specialists since 1840 and manufacturers of the famous Combinol and Valspar paints—who will be pleased to give free advice on colour schemes and painting specifications. Goodlass Wall and Co. Limited, Corn Exchange, Liverpool 2, and: 179/185 Gt. Portland Street, London, W.1



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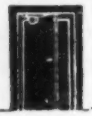

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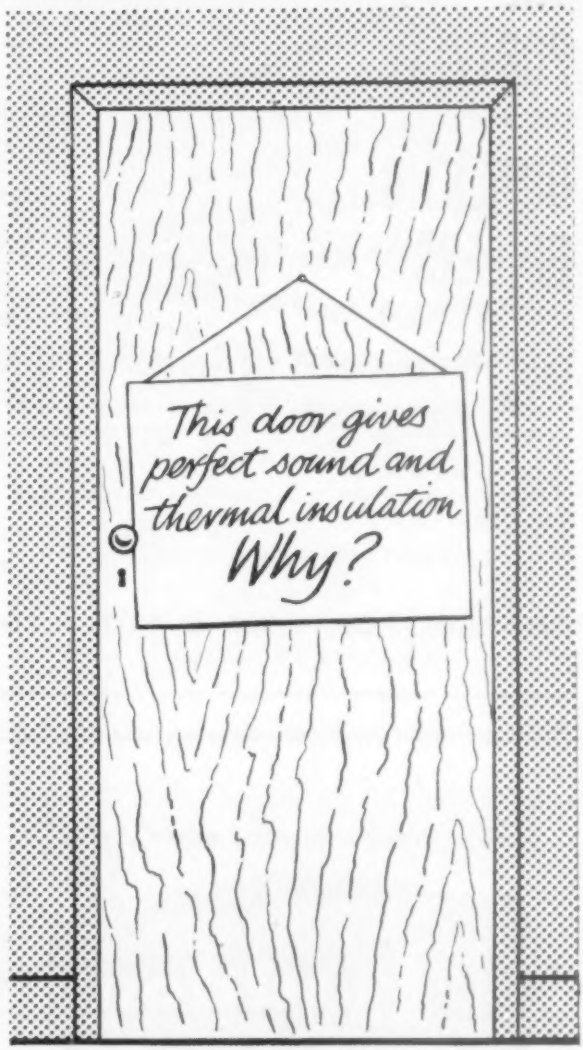

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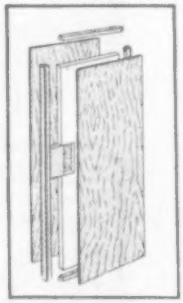

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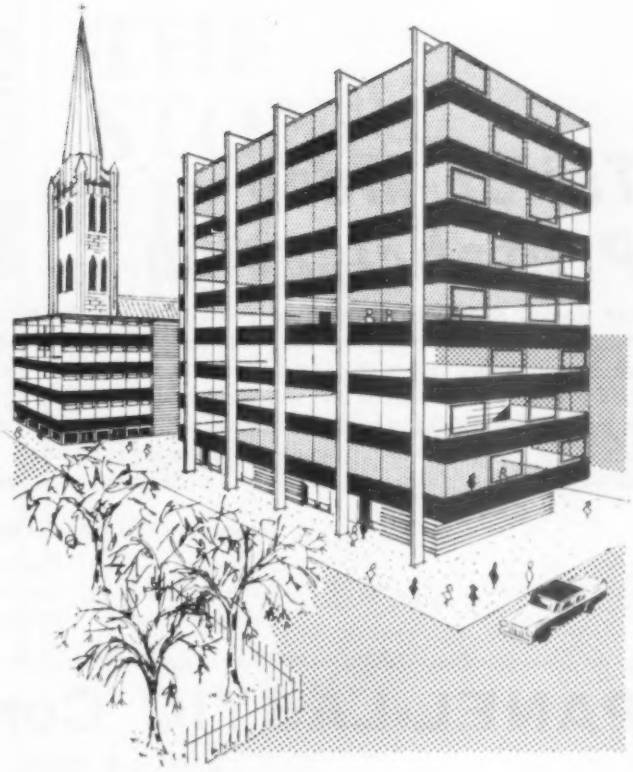

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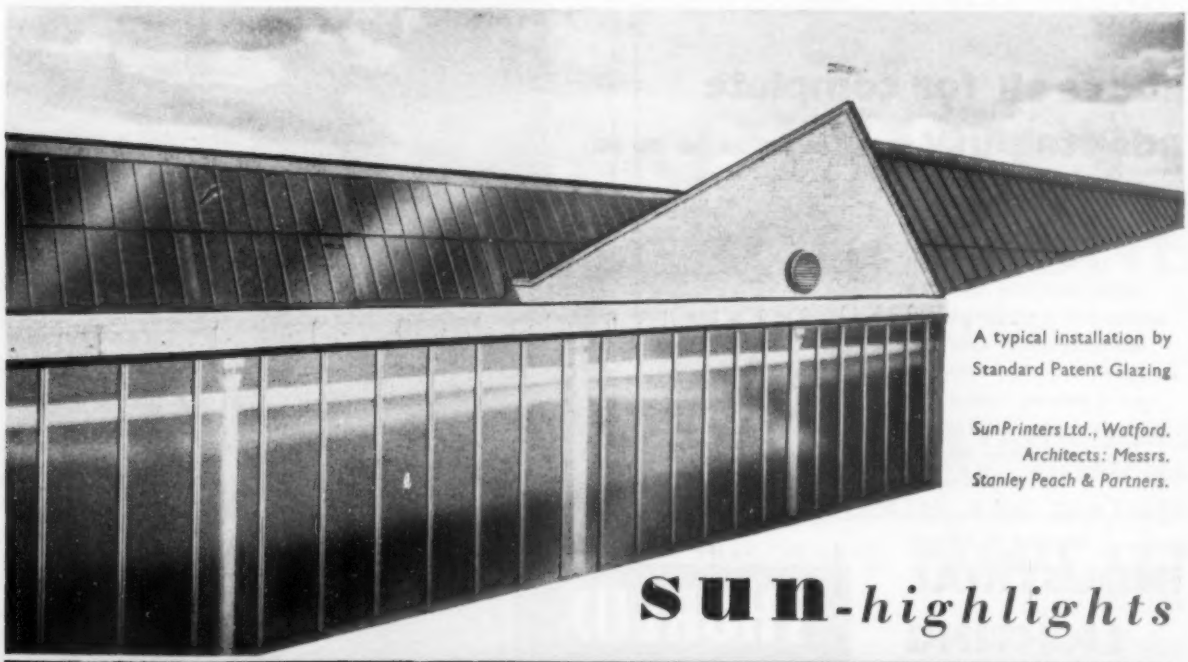

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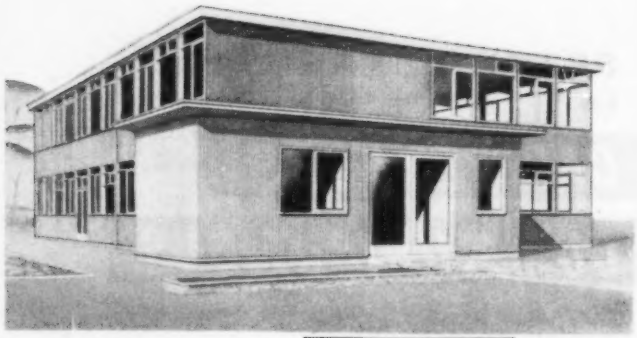

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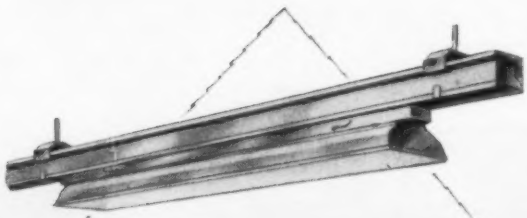

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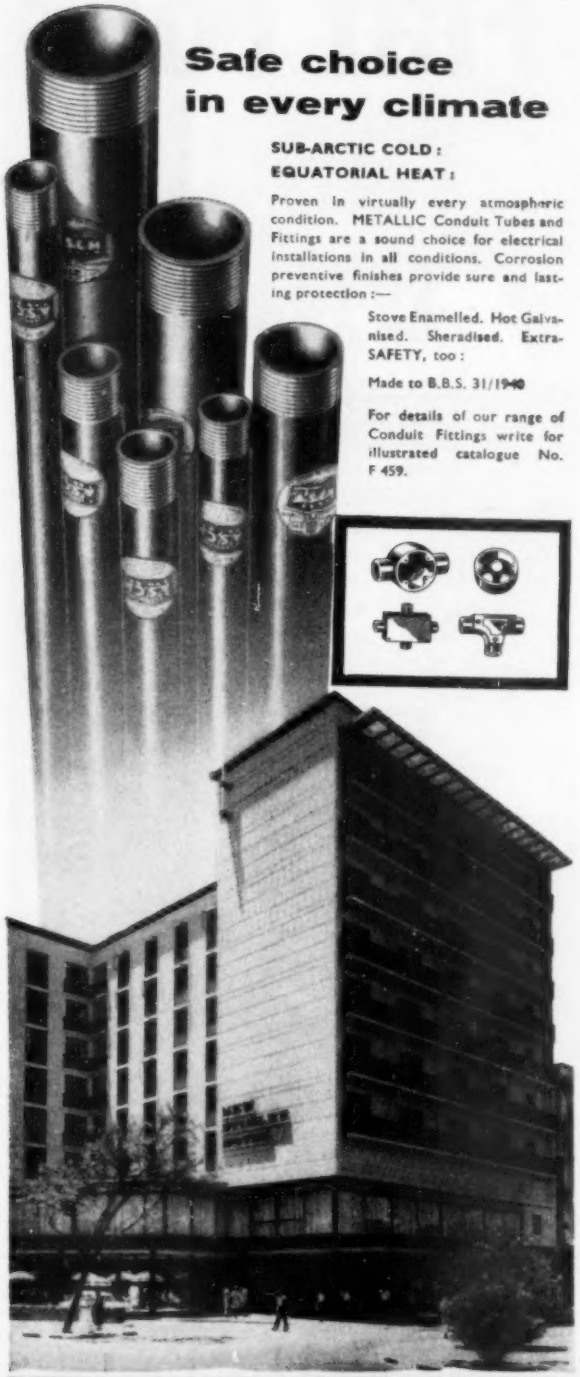

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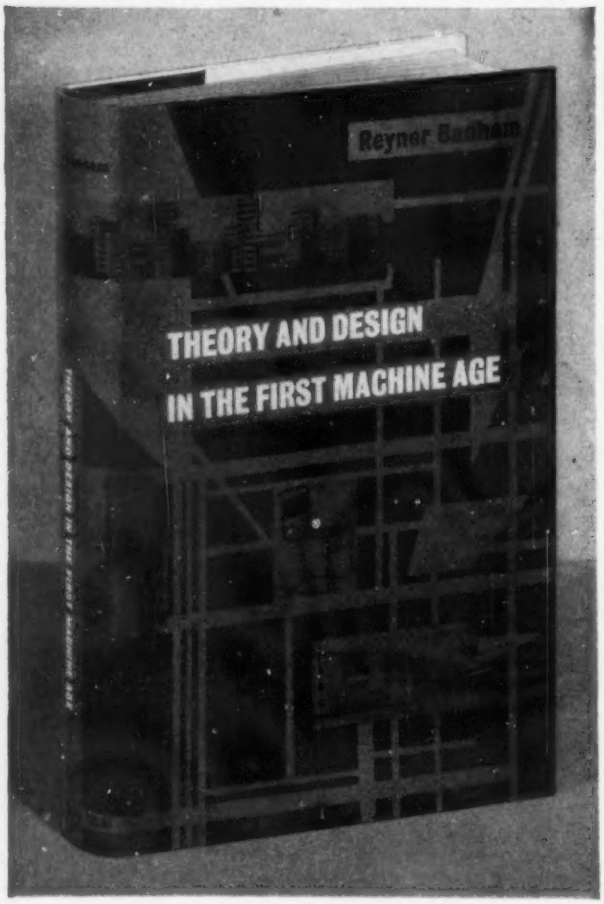

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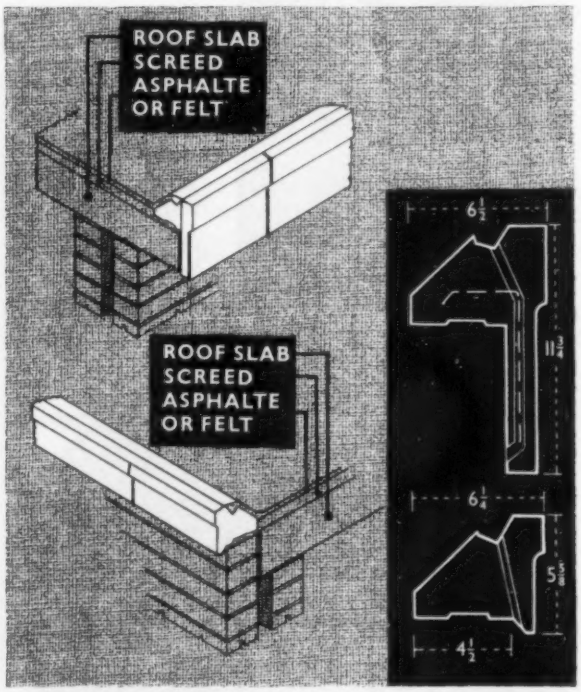

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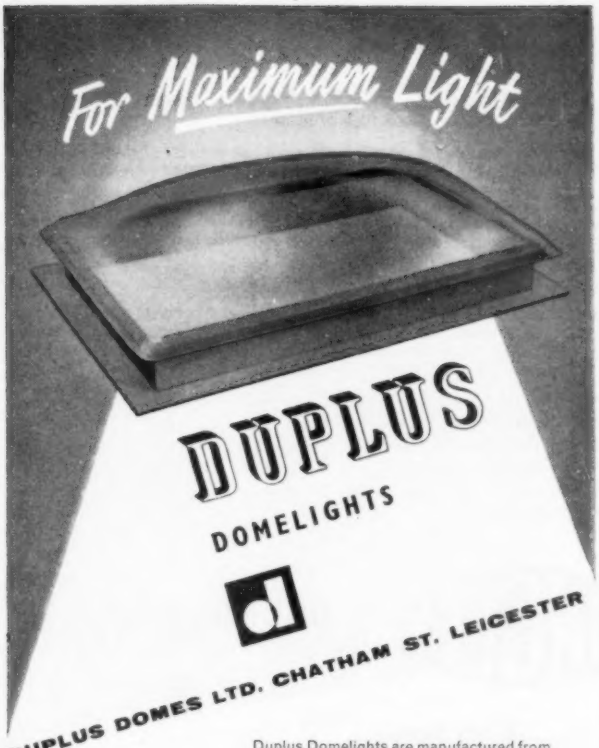

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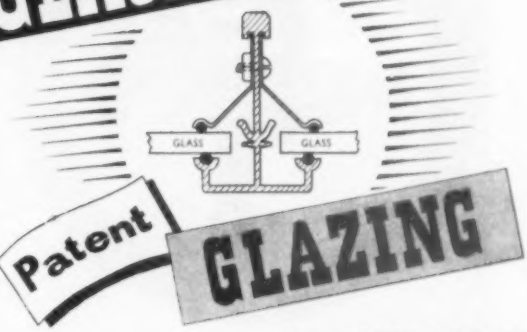

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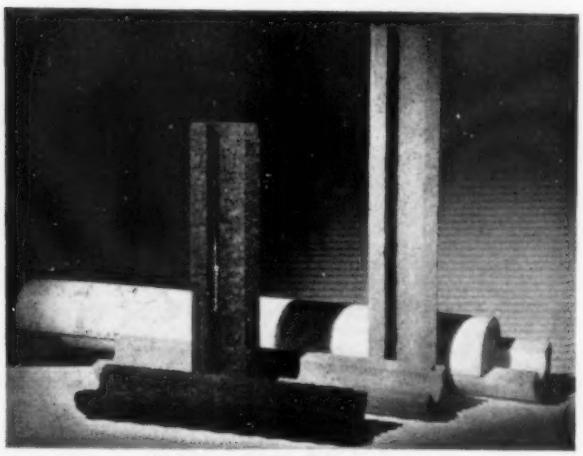

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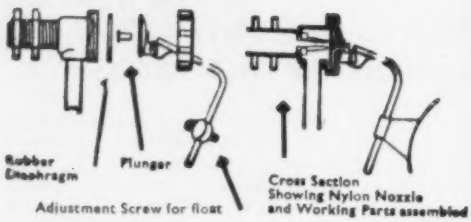

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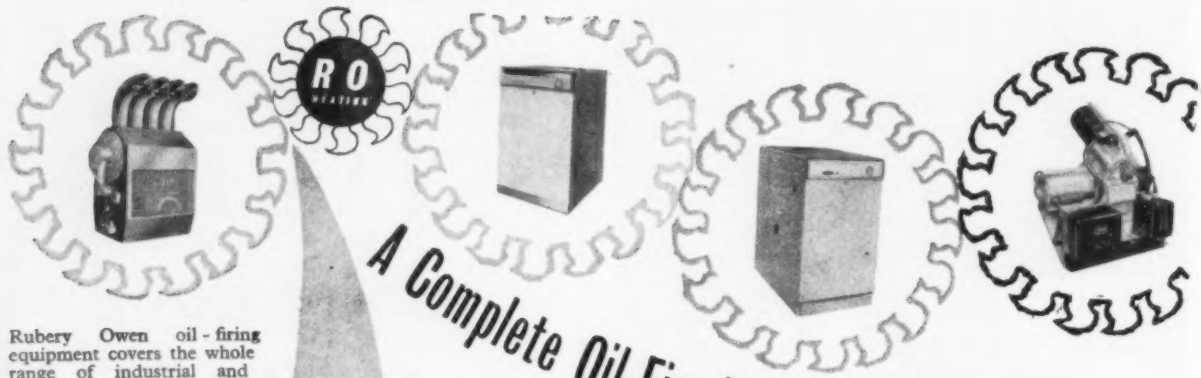

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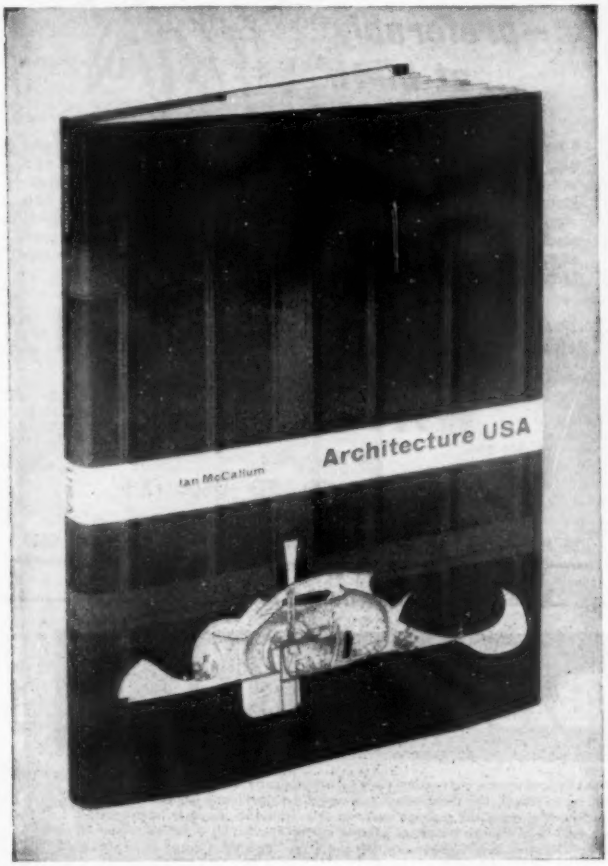

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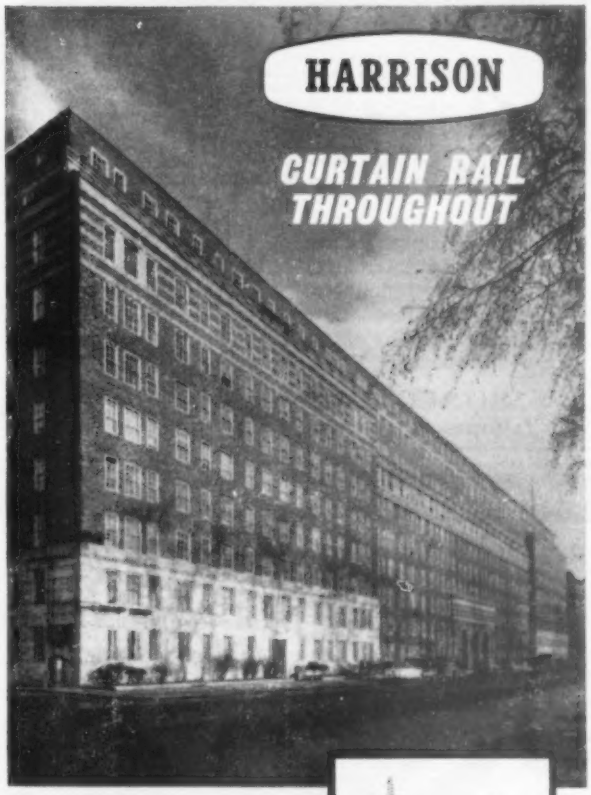

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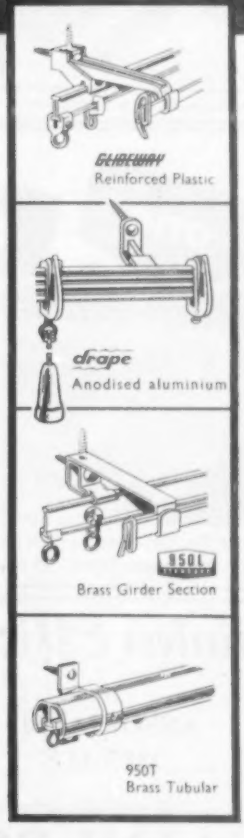

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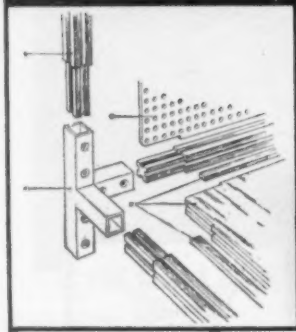

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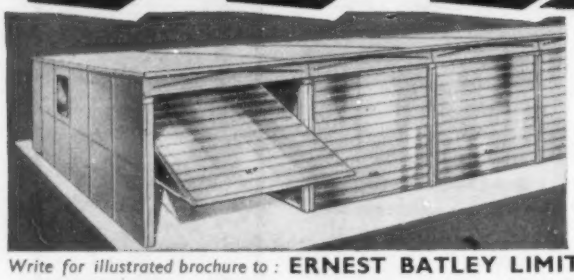

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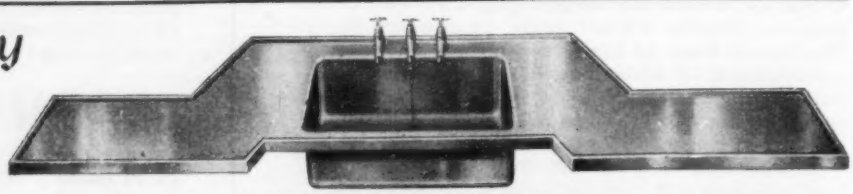

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Complete New Hospitals.
Major Extensions of Existing Hospitals.
Remodelling and Upgrading of Existing Hospitals.
The Board invites ARCHITECTS, interested in hospital design and having the necessary staff and capacity to undertake quickly and efficiently the planning of such projects and their subsequent supervision, to submit their names for consideration.
Applications should be submitted to reach the undersigned not later than 17th April, 1961, and must include the following information:—
(i) Qualifications of the partners.
(ii) Particulars of projects recently undertaken including values and contract periods.
(iii) Particulars including value of projects for which appointment has already been accepted for which building has not yet commenced.
(iv) Number and grades of qualified and unqualified staff at present in post.
(v) Whether the office capacity can be readily expanded to meet demand.

L. W. FAULKNER,
Secretary to the Board.
Fulwood House,
Old Fulwood Road,
Sheffield, 10. 6680

BASILDON DEVELOPMENT CORPORATION
DEPARTMENT OF ARCHITECTURE AND PLANNING
GROUP LEADER ARCHITECT / PLANNER required to lead a Planning Group engaged on the overall Planning of the largest of the New Towns; stage of development at present reached is approximately half-way towards a population of over 100,000.
The work of the Planning Section is now concentrated on the comprehensive redevelopment of large existing communities within the designated area, and also the revision and implementation of the Master Plan.
The post offers an excellent opportunity for a skilled Architect/Planner of enthusiasm, initiative and experience to work comprehensively on all aspects of the latest development at Basildon.
The post is superannuable, subject to satisfactory medical examination, and is graded in A.P.T. VI/VII, the commencing salary being within the range £1,305—£1,670.
Housing accommodation.
Excellent school facilities.
Applications giving full details to the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, as soon as possible. 5703

CHISLEHURST AND SIDCUP URBAN DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTS
Applications invited for following appointments in Architect's Section of Engineer & Surveyor's Department:
ASSISTANT ARCHITECT
Salary Grade A.P.T. III/IV (£960—£1,310) plus London weighting.
ARCHITECTURAL DRAUGHTSMAN
Salary Grade A.P.T. I (£645—£815) plus London weighting (£15—£40 according to age).
Housing accommodation available.
Applications, giving age, training, qualifications and experience and names of two referees to Clerk, Council Offices, Sidcup Place, Sidcup, Kent, by 17th April, 1961. 6722

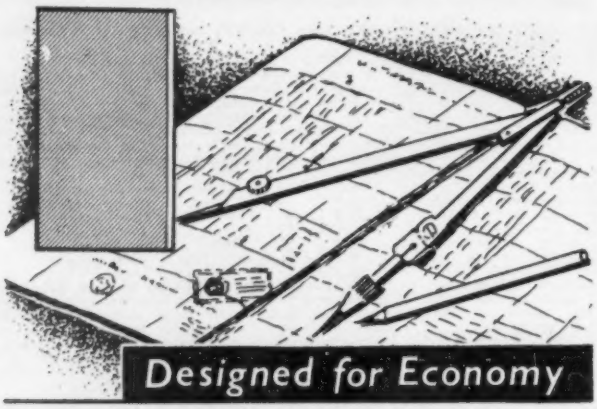
CITY AND COUNTY OF NEWCASTLE UPON TYNE
CITY ARCHITECT'S DEPARTMENT
A unique opportunity exists in this office for competent Architects to take part in one of the most ambitious programmes of varied building works in the country, and vacancies in the establishment occur for ARCHITECTS who will be considered on their ability in design, experience, and architectural outlook, in the following grades:—
J.N.C. "C": £1,560—£1,825 per annum.
J.N.C. "B": £1,410—£1,670 per annum.
A.P.T. V: £1,310—£1,480 per annum.
A.P.T. IV: £1,140—£1,310 per annum.
A.P.T. III: £960—£1,140 per annum.
A.P.T. II: £815—£960 per annum.
A.P.T. I: £645—£815 per annum.
The Department is engaged upon a wide and varied programme of major redevelopment schemes embracing multi-storey flats, shopping precincts and associated community buildings, one of which schemes is the Scotswood Road Redevelopment Area to rehouse approximately 5,000 people, and which is expected to cost in the region of £12 million.
Planning work has now commenced on the new Education Precinct in the central area, comprising Colleges of Further Education, Art and Industrial Design, Drama, Commerce and Multi-storey Hostels, which will be the largest development of its kind in the country.
Further projects include: Airport Terminal; Abattoir and Fatstock Market; Vegetable Markets, Central Library; and Divisional Police Headquarters, etc., and a varied programme of normal housing development of a stimulating character.
The department is also engaged on the New Town Hall, where an exceptional opportunity is presented for working on a building of some £4 million in value, and being executed in materials of the highest quality.
Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, indicating the grade for which they wish to apply.

JOHN ATKINSON,
Town Clerk.
Town Hall,
Newcastle upon Tyne, 1.
20th February, 1961. 6084

LANCASHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ARCHITECTURAL ASSISTANTS
(within the salary range £645—£960 according to experience and ability)
Applications are invited from Architectural Assistants for appointments to the permanent staff of the County Architect's Department, which is engaged on a large and varied programme of major projects.
Applicants should have attained at least Intermediate R.I.B.A. standard and, within this stage of qualification, have a reasonably varied experience.
Application forms and details of appointment obtainable from the County Architect, P.O. Box 26, County Hall, Preston, should be returned by 29th April, 1961. 6641

UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE
Applications are invited for the following on staff of Architect and Buildings Officer:
(*a*) SENIOR ASSISTANT ARCHITECT—Scale £1,310 × £55 (2) × £60—£1,480 (A.P.T. V). Applicants should have particular experience in design, be school trained with at least four years' practical experience and be Registered and Chartered Architects.
(*b*) ASSISTANT ARCHITECT—Scale £815 × £30 (4) × £25—£960 p.a. Applicants should have passed Intermediate Examination of R.I.B.A. and be studying for Final Examination.
Duties may include work on buildings for teaching and research, students' residences, general purpose buildings and services. Posts are included in College Superannuation Scheme. Further particulars may be obtained from Architect and Buildings Officer, The College, Keele, Staffs., to whom three copies of application giving full details of age, qualifications, experience, etc., and names of three referees, should be sent not later than 17th April, 1961. 6637

DERBYSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
SENIOR ARCHITECT (GROUP LEADER) required. Senior Officers' Scale "C". Salary £1,560 × £70 (3) and £55 (1) to £1,825 per annum.
This department provides scope for qualified and enthusiastic architects who possess considerable experience, and have a sound knowledge of modern trends in design and the latest forms of construction. A knowledge of large-scale public building projects such as Schools, Welfare and Children's Homes, Hostels, Clinics, Occupational Centres, Police, Fire- and Ambulance-Stations, in addition to Housing will be an advantage.
Local Government Superannuation Scheme. Five-day week. Scheme of allowances towards removal and lodging expenses in appropriate cases. Nationally negotiated conditions of service. Canvassing disqualifies.
Application forms from: F. Hamer Crossley, Dipl.Arch.(L'pool), F.R.I.B.A., County Architect, County Offices, Matlock, Derbyshire, to whom they should be returned as soon as possible. 6723



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COUNTY BOROUGH OF EAST HAM

ARCHITECTS

Applications are invited for the following temporary appointments :—

Senior Assistant Architects
Salary £1330 - £1500

Salaries in excess of the minimum may be paid according to qualifications and experience. The appointments are for work on a new Technical College costing more than £700,000 and are expected to be for a period of not less than two years.

Further details and application forms returnable by 21st April 1961 from the Town Clerk, Town Hall, East Ham, E.6.

BIRDS EYE

BIRDS EYE FOODS LIMITED

ARCHITECTURAL ASSISTANTS

required to help carry out full architectural services for industrial buildings, and in particular, process areas canteens, and office accommodation, necessary for the further development of this rapidly expanding Company. Applicants, qualified by examination and/or experience should show themselves capable of handling building projects from sketch design to completion, and will be offered the opportunity of undertaking responsibility reporting directly to the Company Architect.

A four-figure salary will be offered together with a ful range of employee benefits, including Superannuation Scheme. Full details of age, qualifications and experience should be sent to:

Personnel Officer,
BIRDS EYE FOODS LIMITED,
HESKETH HOUSE, PORTMAN SQUARE,
LONDON, W.1.

TIEWSLEY AND WEST DRAYTON URBAN DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the permanent appointment of an Architectural Assistant in the Engineer and Surveyor's Department at a salary within A.P.T. Grade III (£960—£1,140) plus London weighting of £45 per annum. The commencing salary will be fixed according to qualifications and experience.

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects and have had experience in the architectural work of a Local Authority. The appointment will be subject to the National Scheme of Conditions of Service and to the Local Government Superannuation Acts.

The use of a car is essential to the appointment and assistance in the provision of a car will be given for which an Essential User Allowance will be paid for a vehicle not exceeding 10 h.p.

Housing accommodation will be provided, if in the opinion of the Council it is necessary. Removal expenses will be reimbursed.

Applications, giving full particulars and details of experience together with the names and addresses of two referees should be sent to the undersigned at the address given below not later than Thursday, 20th April, 1961, and must disclose whether the applicant is to his knowledge related to any member, or senior member, of the Council.

ARTHUR BOOTE,
Clerk of the Council.

Drayton Hall,
West Drayton,
Middlesex.
29th March, 1961. 6701

BOROUGH OF HEYWOOD
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited from persons who have passed the R.I.B.A. Intermediate Examination for the above-mentioned appointment in the department of the Borough Engineer and Surveyor at a salary in accordance with A.P.T. Grade II (£815—£960) of the Scale of Salaries.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, to the National Joint Council's Conditions of Service and to one month's notice in writing on either side.

The successful applicant will be required to pass a medical examination.

Consideration will be given to the provision of housing accommodation.

Applications endorsed "Architectural Assistant," stating age, qualifications and experience and accompanied by copies of two recent testimonials, should reach the undersigned not later than Thursday, 20th April, 1961.

Canvassing in any form will be a disqualification.

W. R. PARKER,
Town Clerk.

Municipal Buildings,
Heywood.
21st March, 1961 6687

QUANTITY SURVEYING ASSISTANTS
required by
ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS

Posts in London, Provinces and overseas. Salaries in London for candidates with suitable experience range from £752 p.a. at age 21 to £1,188 p.a. Write for particulars of vacancies in each Department, and forms, to Ministry of Labour, Technical and Scientific Register (Room 403), 25, King Street, London, S.W.1. 6693

ASSISTANT QUANTITY SURVEYORS
required by
MINISTRY OF EDUCATION
ADMIRALTY
WAR OFFICE
AIR MINISTRY
MINISTRY OF WORKS

Posts in London, Provinces and overseas. London Salaries for suitably qualified and experienced men up to £1,412 p.a. Prospects of promotion and pensionable status. Write for particulars of vacancies in each Department and forms, quoting J.Q.S., to Ministry of Labour, Technical and Scientific Register (Room 403), 26, King Street, London, S.W.1. 6692

CUCKFIELD URBAN DISTRICT COUNCIL
PLANNING ASSISTANT, A.P.T. III

Applications are invited for the post of Planning Assistant in the Surveyor's Department of the above Council at a salary in Grade A.P.T. III (£960—£1,140).

Candidates should possess the prescribed qualifications and should have had experience in planning procedure and building byelaw control.

The post offers excellent experience in a rapidly expanding district (present population 20,000).

Assistance will be given with regard to housing.

The appointment will be subject to the National Conditions of Service, the Local Government Superannuation Acts, and to one month's notice on either side.

Applications must be sent to the undersigned with particulars of age, qualifications, experience, present salary and duties, with the names of two referees not later than 12th April, 1961.

J. A. EVANS,
Clerk of the Council.

Council Offices,
Oaklands,
Haywards Heath,
Sussex. 6755

HAMPSHIRE
TOWN DEVELOPMENT AT BASINGSTOKE

Applications are invited for the following posts concerned with the expansion of Basingstoke under the Town Development Act, 1952, from its present population of 25,000 to about 75,000 by 1975. The officers will be appointed to the staff of the Hampshire County Council, but will work under the direction of a Joint Committee of representatives of the Basingstoke Borough Council, the London County Council, and the Hampshire County Council.

Candidates should hold appropriate professional qualifications and have had extensive experience of town expansion schemes. The posts are pensionable. Separation allowance and assistance with removal expenses will be paid in approved cases. Salary of the Director will be fixed within the range according to qualifications and experience.

1. DIRECTOR OF TOWN DEVELOPMENT, £3,500—£4,000.
2. CHIEF ARCHITECT/PLANNING OFFICER, £3,250.

Applications, stating full details of age, education, qualifications and experience, and accompanied by a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 10th April. 6592

DENBIGHSHIRE COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT

Applications are invited from suitably qualified persons for the following appointments to the Headquarters Staff of the County Planning Department at Ruthin:—

(*a*) ASSISTANT COUNTY PLANNING OFFICER, J.N.C. Scale "C" (Salary £1,560—£1,825 per annum).
(*b*) SENIOR COUNTY PLANNING ASSISTANT (Development Control), A.P.T. Grades IV/V (Salary £1,140—£1,480 per annum).

Applicants for post (*a*) must be Corporate Members of the Town Planning Institute and an additional appropriate qualification is desirable. Considerable experience is required in all aspects of Development Control work and planning administration.

For post (*b*), applicants should be Corporate Members of the Town Planning Institute or should possess an alternative appropriate qualification and have had development control experience.

Contribution made towards removal expenses and consideration given to the payment of subsistence allowances to married officers in the case of post (*b*).

Application forms and further particulars obtainable from me. Completed application forms to be returned by 22nd April, 1961.

W. E. RUFTON,
Clerk of the County Council.

County Offices,
Ruthin,
Denbighshire. 6645

COUNTY BOROUGH OF SOUTHPORT

Applications are invited for the undermentioned appointments in the Borough Architect and Town Planning Officer's Department:—

(*a*) ASSISTANT ARCHITECT, Grade A.P.T. III / IV. Salary £960—£1,310. Applicants should be Registered Architects and/or Associates R.I.B.A.
(*b*) TEMPORARY TOWN PLANNING ASSISTANT. Grade A.P.T. III. Salary £960—£1,140. Applicants should be capable, with minimum supervision, of undertaking the first review of the Town Development Plan which includes: Land Use Survey of the Borough, Preparation of Maps and Tables, Revision of Written Analysis and Written Statement.
(*c*) TEMPORARY TOWN PLANNING ASSISTANT. Grade A.P.T. I. Salary £645—£815. The successful applicant will be required to assist on the work of the Town Development Plan review, and should have a reasonable standard of draughtsmanship.

The Council will give favourable consideration to granting a 100 per cent. mortgage on house purchase.

NOTE: Successful applicants for Temporary Posts (*b*) and (*c*) will be required for at least two years.

Application forms may be obtained from the Borough Architect and Town Planning Officer, 99/105 Lord Street. Closing date 22nd April. 6716

COUNTY BOROUGH OF DEWSBURY
BOROUGH ARCHITECT AND BUILDING SURVEYOR'S DEPARTMENT

Applications are invited for the following appointment within the scope of the grade stated:—

ASSISTANT ARCHITECT (Housing and General Section), A.P.T. Grade IV (£1,140—£1,310 p.a.).

Applicants should be A.R.I.B.A.

The provision of housing accommodation will be considered if required.

The appointment will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Acts.

Applications stating age, education, qualifications, full particulars of training and experience, together with copies of two recent testimonials, should be sent to the undersigned not later than Monday, 24th April, 1961, in envelopes endorsed "Appointment of Assistant Architect."

A. NORMAN JAMES,
Town Clerk.

Town Hall,
Dewsbury.
27th March, 1961. 6775

HAMBLEDON RURAL DISTRICT COUNCIL
APPOINTMENT OF CHIEF ASSISTANT ARCHITECT

Applications are invited for this appointment in the Department of the Engineer and Surveyor. Full particulars and conditions of appointment can be obtained from the undersigned. They include:

(*a*) Salary in accordance with Grade A.P.T. IV, £1,140—£1,310 per annum. Commencing salary up to the maximum of the grade having regard to qualifications and experience.
(*b*) An Essential User Car Allowance.
(*c*) Good house available if required.
(*d*) Reimbursement of 50 per cent. of approved removal expenses.
(*e*) Five-day working week.

The appointment offers good experience and interesting work in the initiation and carrying out of a new policy for all aspects of the Council's Housing Programme.

Closing date for applications 10 a.m. on Monday, the 17th April, 1961.

Dated this 24th day of March, 1961.

C. J. WAGG,
Clerk of the Council.

Council Offices,
Bury Fields,
Guildford,
Surrey. 6729

NEWCASTLE REGIONAL HOSPITAL BOARD
ARCHITECTURAL DEPARTMENT
P. H. KNIGHTON, M.B.E., A.R.I.B.A., Regional Architect.
H. GOUGH, F.R.I.C.S., Chief Quantity Surveyor.
QUANTITY SURVEYING STAFF

The Board has decided to establish a Quantity Surveying section within the Regional Architect's Department and under the supervision of its Chief Quantity Surveyor.

The posts offer excellent opportunities for taking part in a wide, varied and interesting field of Hospital Building. Cost Planning will be carried out within the Department, and will enable the Quantity Surveyors to take an active and personal part in implementing the Region's hospital expansion programme.

Applications are invited for the following (superannuable) posts, for which a car mileage allowance will be paid.

1. SENIOR ASSISTANT QUANTITY SURVEYOR, Scale £1,300—£1,600.

Applicants must be Corporate Members of the Royal Institution of Chartered Surveyors. Assistance with removal expenses will be given if the appointee is at present in a lower graded Health Service Post.

2. QUANTITY SURVEYING ASSISTANT, Scale £625—£900.

Applicants must have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors.

Increments can be given above the bottom of the grade in accordance with age and relevant practical experience.

Details of training, qualifications, experience, present salary etc., with the names of three referees, should reach the Secretary to the Board, Benfield Road, Newcastle upon Tyne, 6, not later than 14th April, 1961. Canvassing will disqualify. 6720

AMENDED ADVERTISEMENT
BOROUGH OF KIDDERMINSTER
ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the undermentioned permanent appointments:—

(1) SENIOR PLANNING ASSISTANT, Grade A.P.T. V (£1,310—£1,480).
(2) ASSISTANT ENGINEER, Grade A.P.T. III (£960—£1,140).

Applicants for appointment (1) must be Associate Members of the Town Planning Institute or hold an equivalent qualification. There is an interesting programme of town redevelopment in hand and applicants should have experience in this type of work and also in the consideration of interim planning applications.

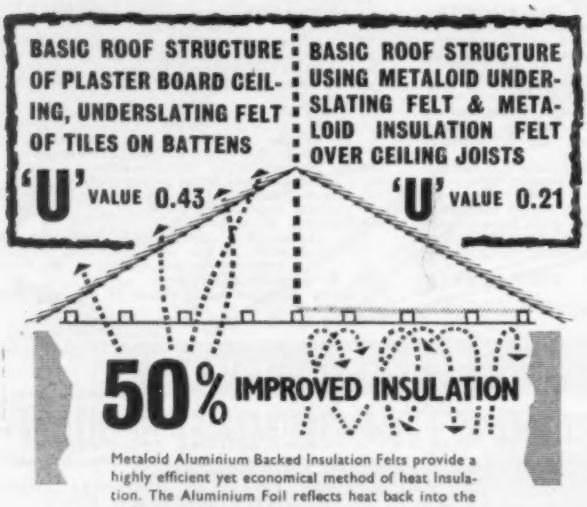
Applicants for appointment (2) should have passed part of the Final examination of the Institute of Municipal Engineers or equivalent and have a good experience in general engineering works.

All of the above appointments will be subject to the Local Government Superannuation Acts and the National Scheme of Conditions of Service. Applications, stating qualifications and experience accompanied by the names of two referees should be delivered to the Borough Engineer and Surveyor, 110 Mill Street, Kidderminster, not later than the 17th April, 1961.

JOHN L. EVANS,
Town Clerk.

Town Hall,
Kidderminster.
22nd March, 1961. 6717

ASSISTANT ARCHITECT, Prison Commission, Head Office, S.W.1, require registered architects, men aged 25 or over, with good professional experience in housing, institution and general work. Duties concern design rather than execution of work. Five-day week. Four weeks and two days paid holidays plus paid public and privilege holidays. Some travelling. Salary £991 (at age 25)—£1,490 including special London weighting allowance. Starting pay according to age and up to £1,318 (34 or over) on joining. Possibility of pensionable posts; promotion prospects. Forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1, quoting J264/OA. Closing date 24th April, 1961. 6759



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ARCHITECTS

NATIONAL COAL BOARD

The big and expanding coalfield of Notts., Derby and Leicestershire has vacancies for first-class architects and architectural assistants.

Interesting, worthwhile work with the opportunity of acquiring wide experience on industrial and welfare buildings and the design of offices, laboratories etc., good conditions and brand new offices in pleasant surroundings.

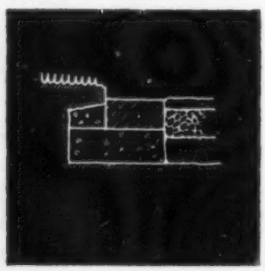
There is also a large and busy quantity surveyors' branch in which vacancies occur from time to time.

Five day week—Staff Restaurant.

Salaries according to age, experience and qualifications range from £655 to £1,625 a year.

Please write for further information to the

Chief Staff Officer, N.C.B.,
Sherwood Lodge, Arnold, Nr. Nottingham.



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'The spaces between buildings are as important as the buildings themselves. The importance of ***detail*** *. . . everything is worth taking trouble with.'*

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It is aesthetic but entirely practical, fully illustrated, thoroughly indexed, and gives ample additional references.

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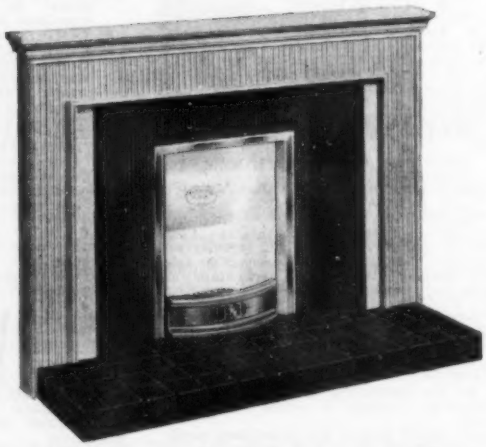

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ARCHITECTURAL STAFF

H. N. MICHELL A.R.I.B.A., DEVELOPMENT ARCHITECT

Has vacancies for

ARCHITECTURAL ASSISTANTS

to work in the Constructional-Development Department. The work is related to the application of Building Systems and other developments evolved within the department. Applicants should have a good standard of design and draughtsmanship with a sound knowledge of basic building construction.

Apply giving brief details to:

Group Personnel Officer (BWM/3)
John Laing and Son Limited,
London, N.W.7

Architects
Architectural assistants

We have vacancies in the Architects' Department in LONDON and EPSOM for qualified men and those who have passed the Intermediate R.I.B.A. Examination.

These are permanent positions: luncheon vouchers five day week, pension scheme.

Please write fully in confidence to:

THE PERSONNEL MANAGER,
W. S. ATKINS & PARTNERS,
158 VICTORIA STREET,
LONDON, S.W.1.

ARCHITECTS

are required for the rapidly expanding Technical Division of a leading firm of Management and Industrial Consultants. The work involves industrial architecture and planning with the architect playing a leading and creative role as a member of the engineering and management team.

Responsibility from inception to final account, on projects throughout the U.K. and Europe. A knowledge of German, French or Italian would be useful. Head office and place of work is in a pleasant country house at Egham, Surrey. Age preferred 28-45. Associateship of the R.I.B.A. is desired but unqualified men of appropriate experience will be accepted. Commencing salary up to £1,700 per annum with early prospects of promotion to men of proved ability. In addition there is a generous non-contributory pension and life assurance scheme. Assistance with removal expenses may be given.

These posts are permanent and offer a most interesting and wide variety of work in collaboration with able and qualified men in the engineering and management sciences.

Applicants are invited to write in confidence to:

Reference QSA 22,
Production Engineering Ltd.,
12 Grosvenor Place,
London, S.W.1.

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Write, stating age, experience and salary required to:

THE ARCHITECT, WESTMINSTER BANK LTD.
Post Office Court, 10 Lombard Street, E.C.3

BOROUGH OF EDMONTON
BOROUGH ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECTS

Applications are invited for the appointment of two Assistant Architects in the Borough Architect's Department of a progressive Borough (94,000 population) offering unique experience in the relationship of design and construction of buildings by Direct Labour. The programme includes multi-storey flats, Town Centre redevelopment, industrial buildings and offices. The Council are prepared to grant loans up to 100 per cent. valuation to facilitate house purchase. Salary Grade A.P.T. IV, £1,140 to £1,310 plus London weighting.

Applications on forms obtainable from the Town Clerk, Town Hall, Edmonton, N.9, must be delivered by the 15th April, 1961.

H. BACKHOUSE,
Town Clerk.
6724

PLANNING OFFICER
PUBLIC WORKS DEPARTMENT
GOVERNMENT OF HONG KONG

Duties: To prepare plans and conditions for development schemes of all types. General Town Planning duties and consideration of private and public building proposals.

Qualifications: Candidates (men only, and under 45) must be A.M.T.P.I. and have a minimum of one year's post qualification experience. They should also preferably be A.M.I.C.E., A.M.I.Mun.E., A.R.I.C.S. or A.R.I.B.A.

Terms of appointment: Pensionable. Salary range £1,650—£2,865 with point of entry between £1,650 and £2,325. Free passages. Accommodation at moderate rent. Generous home leave. Free medical attendance. Write to Director of Recruitment, Colonial Office, London, S.W.1, giving full names, age, qualifications and experience quoting BCD.112/51/031/E2. 6709

COUNTY BOROUGH OF STOCKPORT

Applications invited for following appointments in Borough Architect's Department:—

(1) SENIOR ARCHITECT, A.P.T. V, £1,310—£1,480 p.a.
(2) ARCHITECT, A.P.T. IV, £1,140—£1,310 p.a. A large and interesting programme of work is in hand. Local Government experience not essential—design ability is more important. Applicants however must be members of the R.I.B.A.
(3) JUNIOR ASSISTANT ARCHITECT, A.P.T. I, £645—£815 p.a.
(4) ASSISTANT QUANTITY SURVEYOR, A.P.T. III, £935—£1,140 p.a.

All above posts pensionable, subject to medical examination. The Corporation have a scheme for advancing in approved cases loans for house purchase up to 100 per cent. Five-day week. Full particulars, age, experience, qualifications, two referees, and if related to any member/senior officer of Council, to Borough Architect, Town Hall, Stockport, by 15th April, 1961. 6741

AUSTRALIA
TOWN PLANNING STAFF
N.S.W. DEPARTMENT OF LOCAL GOVERNMENT

Applications are invited for:—
TOWN PLANNERS, £2,035—£2,100.
ASSISTANT TOWN PLANNERS
(Certificated), £1,780—£1,815.
(Uncertificated), £1,620—£1,700.

Qualifications: University Degree in appropriate Faculties of recognised Universities, including studies in either Architecture, Engineering, Surveying, Mathematics, Economics, Geography or Geology. Corporate Membership of the Institution of Engineers, the Royal Institute of Architects or the Institution of Surveyors and/or Associate Membership of the Town Planning Institute, London.

Status and salary on appointment determined according to qualifications and previous experience. Certification as a Town Planner in New South Wales is contingent upon completion of qualifications under the Local Government Act.

Permanent appointment available with superannuation, sick and extended leave benefits.

Passage to New South Wales for successful applicants and family under 18 years of age.

For further particulars and application forms please write to the Agent General for New South Wales, 56, Strand, London, W.C.2, with whom four copies of applications (including a recent photograph of the applicant) should be lodged by 14th April, 1961. 6754

COUNTY BOROUGH OF DUDLEY
BOROUGH ARCHITECT'S DEPARTMENT

Vacancies exist for the following permanent appointments in the Borough Architect's Department.

ASSISTANT ARCHITECTS AND ASSISTANT QUANTITY SURVEYORS
A.P.T. Grade V (£1,310—£1,480).
A.P.T. Grade IV (£1,140—£1,310).

Applicants for the above should be A.R.I.B.A., A.R.I.C.S. or A.I.Q.S. as appropriate and will be graded according to experience.

A.P.T. Grade III (£960—£1,140).
A.P.T. Grade II (£815—£960).
A.P.T. Grade I (£645—£815).

Applicants for the above should have passed the Intermediate examination of the R.I.B.A., R.I.C.S. or I.Q.S. whichever is appropriate and will be graded according to experience.

Appointments will be superannuable, governed by the terms and conditions applying to Local Authority employment, and successful applicants will be required to pass a medical examination.

Applications, together with the names and addresses of two referees to reach me on or before Friday, 14th April, 1961.

P. D. WADSWORTH,
Town Clerk.

The Council House,
Dudley,
Worcestershire.
27th March, 1961. 6767

WESTERN REGIONAL HOSPITAL BOARD
(SCOTLAND)
CHIEF ARCHITECT

Applications are invited for the post of Chief Architect. Salary scale—£2,800 × £150 (4) to £3,400. The appointment is Superannuable and is subject to the appropriate Whitley Council Conditions of Service. The successful candidate will be required to pass a medical examination.

The person appointed will be responsible to the Board for the architectural work in the Region.

Candidates must be Registered Architects who have pased the requisite examinations.

Applications, giving age, details of professional training, qualifications, experience and past and present appointments, present salary and other relevant details, should be sent, not later than 30th April, 1961, to the Secretary, Western Regional Hospital Board (Scotland), 351 Sauchiehall Street, Glasgow, C.2, from whom further information may be obtained. 6770

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
ARCHITECT'S AND BUILDING SURVEYORS

required for interesting programme of alterations, adaptations and extensions to schools, welfare and children's homes, fire brigade stations and other buildings.

Up to £1,250. Candidates must be able to carry own jobs from sketch scheme to completion of contract.

Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council, (EK/A/806/3), County Hall, S.E.1. 6743

WESSEX REGIONAL HOSPITAL BOARD

The following staff are required in the Architect's Department for the Board's expanding hospital building programme:—

ASSISTANT ARCHITECTS

£905 × £35 (1) × £45 (6) × £50 (2)—£1,310.

Applicants must be Registered Architects. The work offers excellent opportunity for gaining experience in the whole field of hospital architecture and covers all stages from sketch plans for comprehensive new hospital projects.

Please apply to the Secretary, Highcroft, Romsey Road, Winchester, for application form which should be returned by the 15th April. 6747

DERBYSHIRE COUNTY COUNCIL
APPOINTMENT OF
DEPUTY COUNTY ARCHITECT

Applications are invited for the above appointment as from 15th October, 1961, from suitably qualified architects.

Salary £2,806 × £100 (3)—£3,106 per annum, plus allowance for use of car.

Applications to be made on forms obtainable from me and returnable by 8th May, 1961.

D. G. GILMAN,
Clerk of the County Council.

County Offices,
Matlock. 6745

BOROUGH OF NEWCASTLE UNDER LYME
REQUIRES

(*a*) ASSISTANT ARCHITECT, Grade A.P.T. IV, £1,140—£1,310 p.a.
(*b*) ARCHITECTURAL ASSISTANTS, A.P.T. III-IV, £960—£1,310 p.a.
(*c*) ARCHITECTURAL ASSISTANTS, A.P.T. II, £815—£960 p.a.

Qualifications for the posts must be as follows: (*a*) A.R.I.B.A.; (*b*) Parts 1 and 2 of Final or Special Final; (*c*) Intermediate R.I.B.A.

Commencing salaries will be in accordance with experience and ability; a car allowance will be granted on the casual users scale for post (*a*) and the person appointed for post (*c*) will be allowed to attend a one-day-a-week school course leading to the Final examination.

The Department's programme includes housing, shops, offices and new schools.

Favourable consideration will be given to the provision of housing accommodation in suitable cases.

Application forms and further particulars may be obtained from the Borough Engineer & Surveyor, Lancaster Building, High Street, Newcastle, Staffs., and should be returned to him not later than Monday, 17th April, 1961.

C. J. MORTON,
Town Clerk.
6771

BOROUGH OF WEMBLEY
APPOINTMENT OF
SENIOR TOWN PLANNING ASSISTANT

Applications are invited from persons with practical experience in Town Planning Administration.

Salary A.P.T. III (£960—£1,140) or A.P.T. IV (£1,140—£1,310) according to qualifications, plus London weighting allowance. The higher grade would apply to an applicant who has been admitted to corporate membership of one of the Institutions appropriate to practising Town Planners.

Form of application, returnable by 19th April, 1961, obtainable from Borough Engineer & Surveyor, Town Hall, Wembley, Middx.

Housing accommodation not provided.

N. CUMPSTY,
Town Clerk.

Town Hall,
Wembley.
31st March, 1961. 6713

CARLTON URBAN DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment at a salary in accordance with Grade IV and V of the A.P.T. Division of the Scales of Salaries of the National Joint Council commencing at £1,140 per annum and rising by annual increments to £1,480 per annum, the point of entry to be determined having regard to the experience of the applicant.

Applicants must b Associates of the R.I.B.A. or Registered Architects.

The appointment will be subject to the provisions of the Local Government Superannuation Acts 1937 to 1953, the National Scheme of Conditions of Service and the satisfactory passing of a medical examination.

Applications stating age, qualifications and details of experience, together with the names of three referees should be forwarded to the undersigned by 10 a.m. on Wednesday, 26th April, 1961.

Housing accommodation will be made available if required and removal expenses will be paid by the Council.

A. E. F. WALKER,
Clerk of the Council.

Council House,
Burton Road,
Carlton,
Nr. Nottingham.
24th March, 1961. 6751

BOROUGH OF WESTON-SUPER-MARE
ARCHITECT ASSISTANT

Applications are invited for this appointment from suitably qualified persons with experience in the design and maintenance of Public Buildings. J.N.C. Conditions, Salary Grade A.P.T. III (£960—£1,140). Superannuated. Housing accommodation provided if necessary. Removal expenses repaid over period of two years. Applications stating age, education, qualifications, appointments held (with dates and salaries) and two referees to Borough Engineer, Town Hall, Weston-super-Mare, not later than 12th April, 1961.

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149 KENNINGTON PARK ROAD,
LONDON, S.E.11.
Tel.: RELiance 2373-2191

MALVERN URBAN DISTRICT COUNCIL
JUNIOR ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment, salary grade A.P.T. II (£815 to £960).

Age, experience, present salary and two names for reference to be submitted not later than Thursday, April 13th, 1961.

J. BULMAN,
Clerk of the Council.

The Council House,
Malvern.
24th March, 1961. 6746

Competition

36s. per inch; each additional line 3s.

HOUSE DESIGN COMPETITION

AN Open Competition for four types of house design is to be sponsored by the Gas Council.

Conditions will be available at the end of April, designs to be in by 31st August, 1961.

Designers will be called on for the minimum amount of work in presenting their ideas, so that effort may be concentrated on solving design problems in new ways, offering exciting new possibilities for living in modern Society.

Assessor: Mr. George Grenfell Baines, O.B.E., F.R.I.B.A., M.T.P.I.

The Competition will be open to Architects, and Students R.I.B.A. if in association with a Registered Architect.

Applications for Conditions:
Secretary,
House Design Competition,
The Gas Council,
1, Grosvenor Place,
London, S.W.1. 6766

Architectural Appointments Vacant

3s. per line; minimum 12s. Box Number, including forwarding replies, 2s. extra.

£950-£1,500. ARCHITECTURAL ASSISTANTS with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingsway, W.C.2. HOLborn 4071. 4934

OPPORTUNITY FOR FRUSTRATED INTERMEDIATE ASSISTANT WITH INITIATIVE AND IMAGINATION, UNABLE TO FIND POST OFFERING FREEDOM IN DESIGN OR CHANCE TO TAKE CHARGE IN PROJECTS. WRITE OR 'PHONE: NICHOLSON AND RUSHTON, 2, NEW SQUARE, LINCOLN'S INN, W.C.2. HOLBORN 2095. 5610

RONALD WARD AND PARTNERS invite applications from ARCHITECTS, Senior and Junior. Long-term prospects. Scope for initiative and responsibility in interesting commercial, industrial and civic projects in British Isles, West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension and Life Insurance schemes. Five-day week. Pleasant offices. Apply 29, Chesham Place, Belgrave Square, London, S.W.1. Tel.: BELgravia 3361. 2960

EXPERIENCED and confident ARCHITECTS required to fill positions of responsibility in a growing and varied practice with industrial and commercial work throughout the southern half of the country. Applicants must have initiative as well as architectural ability to carry through contracts up to £100,000, working directly with Principals but with minimum supervision. Apply in writing to Thomas Mitchell & Partners, 20, Bedford Square, London, W.C.1. 5418

TWO SENIOR ASSISTANTS required. Salary in accordance with experience. Please apply to F. G. Frizzell, A.R.I.B.A., 80, Portland Place, W.1. LANgham 1732. 4943

ARCHITECTURAL ASSISTANTS required with practical experience. Varied practice including contemporary work. Salary £700—£1,100 (plus L.V.s), according to qualifications and experience. Please write, giving full particulars, to Sir Giles Scott, Son & Partner, 9, Gray's Inn Square, W.C.1. 5601

WOLVERHAMPTON. Norman & Dawbarn require an ASSISTANT in their Midlands Office. This position could afford useful experience of small and medium size jobs in a young but expanding office, with possibility of later transfer to London Office or overseas if desired. Minimum of two years' office experience required if qualified, four years if Intermediate. Excellent working conditions, five-day week, three weeks' annual leave, lunch vouchers. Write or telephone 7, Portland Place, London, W.1 (LANgham 8011), or Heantun House, Salop Street, Wolverhampton (Wolverhampton 27387). 5628

PLAYNE & LACEY require experienced and enthusiastic SENIOR ARCHITECTURAL ASSISTANT for work on University project. Salary range £1,200 to £1,500. Write 19, Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2562 for interview. 5617

ARCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 918, c/o 7, Coptic Street, W.C.1. 5647

OPPORTUNITY for Intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding practice in Croydon. Apply to Donald Rowswell & Partners, 11/11a, George Street, Croydon, or telephone CROydon 4080. 5723

SENIOR ASSISTANTS required for work on large Hospital programme, excellent opportunities for the right men, salary £1,000—£1,400. Luncheon Vouchers and five-day week. Write giving full particulars to W. H. Watkins, Gray and Partners, 57, Catherine Place, S.W.1. 5633

VACANCIES exist in large provincial practice with offices in Peterborough and Spalding for the following:

(1) ARCHITECTURAL ASSISTANT, Male or Female, qualified, with few years' office experience. Able to work on own initiative and take responsibility. Salary up to £1,150 to suitable applicant.

(2) ARCHITECTURAL ASSISTANT, Male or Female, qualified, having recently left college, office experience not essential. Salary up to £900.

(3) JUNIOR ASSISTANTS, Intermediate/Final standard with 2/3 years' office experience. Salary up to £800.

The work is of a varied and interesting nature, pension scheme in operation. Assistance will be given with accommodation in appropriate cases. Apply in writing with full details to:—
Ruddle & Wilkinson, F/L/A.R.I.B.A.,
Long Causeway Chambers,
Peterborough. 6029

ARCHITECT required in Oxford Office to work on hospital programme. Five-day week. Write giving full particulars to W. H. Watkins, Gray & Partners, c/o Churchill Hospital, Headington, Oxford. 5964

ARCHITECTURAL ASSISTANTS required for interesting work, including schools and hospitals, in Croydon office. Commencing salaries offered: £900—£1,150 for Associates, £650—£850 for students, according to age and experience. Five-day week and annual bonus. Write to George Lowe & Partner, 79, George Street, Croydon. 5197

ARCHITECTURAL ASSISTANTS of all grades, particularly Intermediate standard, required on varied and interesting projects. High salaries will be paid in accordance with skill or experience of applicant. Lewis Solomon, Kaye & Partners. City 8811. 5970

ERNO GOLDFINGER requires several qualified ASSISTANTS with at least 2 years' experience to take part in a growing programme of interesting work which includes large office buildings, central developments, Local Authority housing, schools and private houses. Good salaries and scope for men with sound knowledge of construction. 'Phone HYde Park 5657. 5084

WILLIAM H. ROBBINS, A.R.I.B.A., requires JUNIOR and SENIOR ARCHITECTURAL ASSISTANTS of Final and Intermediate standard for interesting work in expanding office.

Applicants should be experienced in design and construction, quick and able to take responsibility.

Excellent opportunity for advancement, salary range Junior Assistants £750 to £900, and Senior Assistants £1,000 to £1,400 per annum, according to experience.

Five-day week. Apply: 77, Wigmore Street, London, W.1. Telephone: WELbeck 0274/5. 5908

BRYAN & NORMAN WESTWOOD & PARTNERS require ASSISTANT ARCHITECTS. Salaries up to £1,200. Apply to 21, Suffolk Street, S.W.1. TRAfalgar 1106. 6736

£1,000-£1,200 PER ANNUM offered in return for commodity, firmness and delight displayed by experienced ASSISTANT, capable of coping with the usual trials of organising a Contract. Telephone WELbeck 2341 for appointment. Feast and Anderson(A/A.R.I.B.A., 38, Gloucester Place, W.1. 6694

ATOMIC ENERGY RESEARCH ESTABLISHMENT, HARWELL
requires a
LEADING ARCHITECTURAL ASSISTANT

TO prepare surveys (including levelling), sketch schemes, working drawings and details for minor works and adaptations, some of a complex and novel nature.

Salary: £1,065—£1,245 p.a.

Applicants should be of Intermediate R.I.B.A. standard and have had several years' relevant experience.

Please send POST CARD for details to the Personnel Manager (1917/119), U.K.A.E.A., A.E.R.E., Harwell, Didcot, Berkshire. 6696

SENIOR and INTERMEDIATE ARCHITECTURAL ASSISTANTS required in Croydon office for large scale developments. Salary according to ability. Write giving full details of training and experience. Box 6699.

ARCHITECTS ASSISTANTS and DRAUGHTSMEN required for major industrial and commercial projects in Midlands. Good salaries offered. Pension Scheme. Excellent prospects in expanding practice. Box 6700

ASSISTANTS required by small but expanding firm of Architects now moving into modern office next to Baker Street Station. Opportunity to participate in all aspects of the business, which includes hotels, housing, flats, commercial premises and other interesting work. The following vacancies occur:

An experienced ASSISTANT to work on sketch schemes, details, specifications.

A DRAUGHTSMAN with several years' drawing office experience.

A BUILDING SURVEYOR capable of writing specifications, supervising work, some draughtsmanship essential.

Salary according to experience. Five-day week. Apply to Box 6706.

GUILDFORD.—ARCHITECTURAL ASSISTANT required to work on Flats, Housing and Office Block Schemes. Apply in writing, stating experience and salary required. Angus McDonald & Partners, F/A.R.I.B.A., 190, High Street, Guildford, Surrey. 6707

YORKE, ROSENBERG AND MARDALL have some vacancies for experienced STAFF, starting salary according to qualifications and experience, in the range £950—£1,200. Ring AMBassador 4621 for appointment. 6200

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SENIOR ASSISTANT ARCHITECTS required for interesting work in progressive office. ASSISTANT, Intermediate standard or above, also required. Five-day week, salary by arrangement. Apply:
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30/31, Barton Arcade, Manchester, 3.
Tel.: Deansgate 4233/4. 6708

SENIOR and INTERMEDIATE ASSISTANTS required, qualified or unqualified, providing application backed by good general office experience. Widely varied practice including Schools, Hospitals, Banks, Shops, Housing, Farm Buildings. Salaries according to experience supplemented by Bonus and Pension Schemes. F. J. Lenton & Partners, A/A.R.I.B.A., 16, Broad Street, Stamford, Lincs. 6702

ARCHITECTS with offices in ENFIELD, Middx., require SENIOR ASSISTANT and INTERMEDIATE ASSISTANT. Wide and interesting range of work available without the tedium and expense of travelling to Town. Practice established over 25 years. Projects in hand include Hospital, Industrial, Domestic and Commercial schemes. Five-day week. Three weeks annual leave.
Write giving full details of training, experience and salary required, to:—
E. William Palmer & Partners,
Chartered Architects,
8, The Town, Enfield, Middlesex. 6704

SOUTHAMPTON.—ASSISTANT of Intermediate standard required for interesting contracts in the Southern Counties. Apply with details of any previous office experience and required salary to E. M. Galloway & Partners, F./A.R.I.B.A., 10, Portland Street, Southampton. 4865

LEICESTER. SENIOR ARCHITECTS AND ASSISTANTS required for general practice. Appropriate salary paid. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 18, Friar Lane, Leicester. Tel. 56476. 5307

NOTTINGHAM. Senior ARCHITECTS and ASSISTANTS required for vast number of projects at fantastic salaries. No dead beats. Box 6656.

OPPORTUNITIES for trained ASSISTANTS to gain experience in all aspects of architectural project management in connection with a wide variety of work, including a major urban development. Salary range up to £1,200. Modern office, five-day week, non-contributory pension scheme, bonuses, luncheon vouchers. Elder and Lester, 2, Town Square, Billingham-on-Tees, Co. Durham. 5836

IMMEDIATE vacancies in leading Bristol office for all grades of ARCHITECTS and ARCHITECTURAL ASSISTANTS. Modern approach to design essential and considerable freedom of expression allowed. Top salaries paid according to ability and experience. Outstandingly good working conditions; 5-day week; annual bonus; contributory pension scheme available; existing holiday commitments honoured. Apply giving particulars of age and experience to W. H. Watkins, Gray and Partners, 8 Colston Avenue, Bristol. Telephone Bristol 292333, reverse charge calls accepted. 6132

ARCHITECTURAL ASSISTANTS, Intermediate to Final standard, required by firm of Exeter Architects. Salary range £600—£850. Apply giving full particulars of age and experience to Box 6225.

ARCHITECTS' ASSISTANTS required, both Intermediate R.I.B.A. and Finalist standard, with experience in this country. Good salary offered. Bernard Gold & Partners, 4/6 Savile Row, W.1. Regent 7551. 6170

INTERMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7236. 9739

OSCAR GARRY AND PARTNERS require three experienced ASSISTANTS to work on large projects at present at design stage. Salaries not less than £1,150. Luncheon vouchers. Apply 66 Gloucester Place, London, W.1, or 'phone WELbeck 2509. 6171

GOOD SALARIES offered for ASSISTANT ARCHITECTS of all grades in expanding office in the City of London, with interesting programme of works in a wide field. Box 6654

BIRMINGHAM

LEONARD J. MULTON & PARTNERS require QUALIFIED ARCHITECTS AND ASSISTANTS. Five-day week. Private Pension Scheme. Salary up to £1,600 per annum, according to qualifications and experience. Work includes Multi-Storey Flats, Hospital Work, Factories and Centre City Development. If you require a progressive position please write to 6, Greenfield Crescent, Edgbaston, or telephone Edgbaston 4188. 6660

DESPAIRING CRY. Voice in wilderness attempting to find ASSISTANT to help build up a small hard-working practice of varied interests. Would work five days a week in West End for salary up to £1,200 p.a. O.K. for holidays. Please reply to Box 6649.

CHALLEN AND FLOYD require an ASSISTANT of Intermediate to Final standard with a minimum of five years' experience. Work will be interesting, varied and responsible. Salary according to age and experience. Luncheon vouchers provided. Apply to 7, Cromwell Road, London, S.W.7. KENsington 8334/8549. 6491

SEELY AND PAGET require a Qualified ASSISTANT with at least two years' office experience to work in their City Office. Successful candidate will be placed on appropriate scale of salary commensurate with qualifications and experience. Please telephone MET 8511 or write 41, Cloth Fair, E.C.1. 6590

ARCHITECT (Fellow or Associate R.I.B.A.) required by firm of Chartered Land Agents practising in Chester/North Wales area to work as a Principal in their Agricultural Building Department, with a competent staff. Excellent opportunity for man with keenness, initiative and drive. Age over 30 years and car owner. Salary commensurate with ability. Write with full particulars to Box 6646.

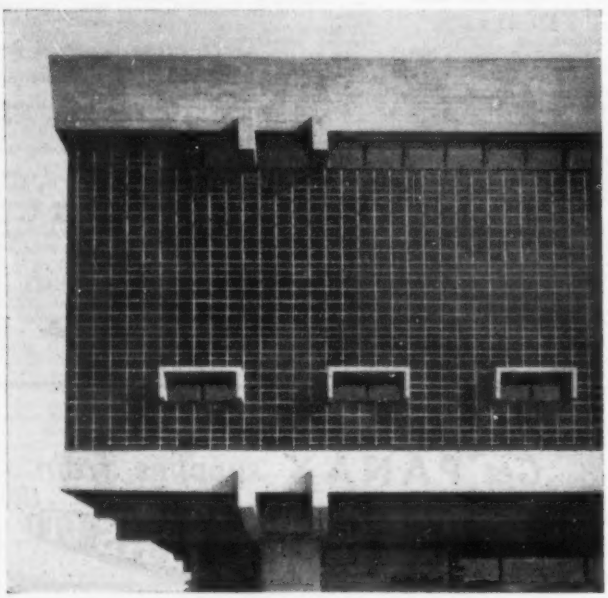
SLOUGH ESTATES LTD., require an ARCHITECTURAL ASSISTANT with at least five years experience, chiefly for industrial work. Five day week, good working conditions, luncheon vouchers, pension scheme, etc. Please apply stating age, experience and salary to The Chief Architect, Slough Estates Ltd., Bedford Avenue, Trading Estate, Slough, Bucks. 6501

ROBERT MATTHEW & JOHNSON-MARSHALL have vacancies in their London office for ARCHITECTS at all levels of experience for a variety of interesting jobs. Apply to Robert Matthew & Johnson-Marshall, 24 Park Square East, N.W.1. 6547

PLAYNE & LACEY require experienced and enthusiastic ARCHITECTURAL ASSISTANTS. Salary range £900—£1,050. Write 19, Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2552 for interview. 6260

SIR JOHN BURNET, TAIT & PARTNERS have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries from £1,200 p.a. Luncheon vouchers, superannuation and medical schemes, non-contributory. Apply 10 Bedford Square, W.C.1. 6126

STOCK, PAGE & STOCK invite applications from experienced ARCHITECTURAL ASSISTANTS, male or female, for permanent posts in London Office Fanshaw House, Fanshaw Street, N.1. Write or phone for appointment. SHO 3383. 6324



New Japanese Architecture

by Udo Kultermann

The Architectural Press
9–13 Queen Anne's Gate, London, S.W.1.

Western opinion has an ideal image of modern Japanese architecture: spare, elegant, informal. While the work of Junzo Sakakura seemed to support this, there is an increasing awareness that in Kenzo Tange Japan possesses an architect who probably ranks with the world's top ten, but practises an entirely different kind of architecture.

Dr Kultermann's book shows how different the work of Tange and other leading Japanese architects has turned out to be. It is not afraid of mass, thickness and solidity; not afraid of bold plastic and sculptural forms; not afraid to mate the most advanced technology with the most hallowed traditional usages.

All these qualities are brought out in dramatic photographs, backed by analytical texts and biographies of leading architects. Since some of these men were born within a few years of Mendelsohn and Le Corbusier, the modern architecture of Japan rests on a tradition almost as old as that of the West. As a result, Japan's new architecture has nothing unpractised or unconvincing about it, but is already so secure in its aims that the Japanese themselves speak of it not as a foreign importation, but simply as the re-awakening of Japanese architecture.

Size 11¼ × 8¾ ins. 212 pages. 180 half-tone illustrations. 63*s. net*. Postage 2*s*.

BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 1, Fitzroy Square, W.1, stating experience and salary required. 9824

ARCHITECTURAL ASSISTANTS, all grades, required for interesting and varied work on large and medium sized schemes—comprehensive redevelopment, hotels, shopping centres, cinemas, theatres, flats, etc. Salary commensurate with ability and qualifications. Apply to James A. Roberts, A.R.I.B.A., Lichfield House, Smallbrook, Ringway, Birmingham 5. 6659

ARCHITECT'S ASSISTANTS required, Senior and Junior, qualified or otherwise, with practical experience. General private practice. Apply: W. B. Starr, Clifford & Carman, 204, Derby Road, Nottingham. Tel.: 45192 and 43828. 6663

HOWARD V. LOBB & PARTNERS require ASSISTANT ARCHITECTS. Salaries would be between £750 and £1,250 per year. Please write to 20, Gower Street, London, W.C.1. 3640

£1,000 £2,000 p.a. will be paid to experienced competent ARCHITECTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box 9360.

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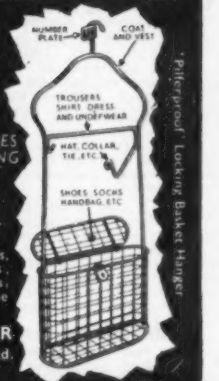

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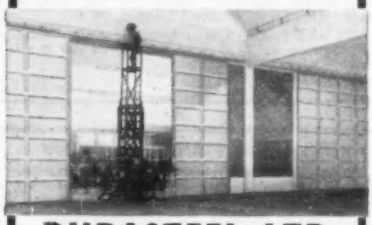

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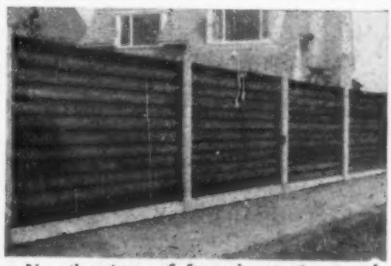

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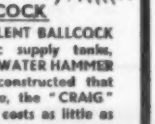

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Down in the valley, the town needs more power. The time's come to bring in a power line from the Grid. That means powers, right across these fields, and on down into the valley.

There are perhaps a hundred paths the powers could follow. *One* must be chosen. Not plotted arbitrarily across a map, but thoughtfully, carefully sited, so that powers and cable strike the best possible balance with the landscape.

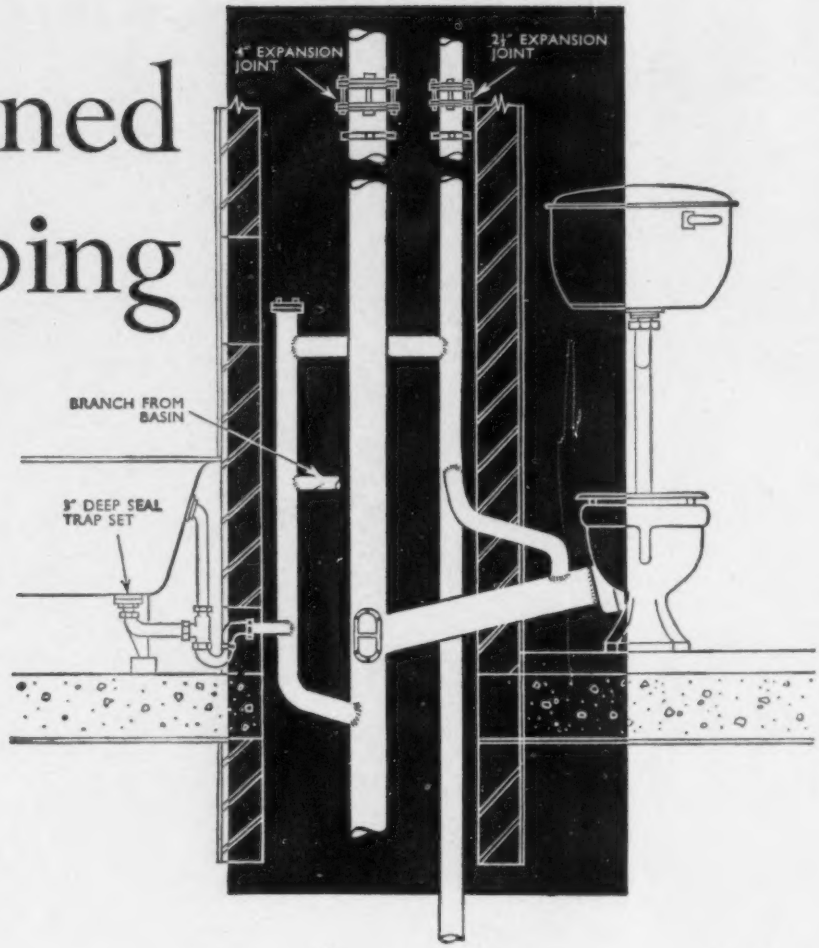
The Central Electricity Generating Board are just as concerned about this as they are about bringing in the power. For the nation has charged the Board with a double duty. Not only to maintain an efficient, economical electricity supply, but also to preserve the amenities of the country as they go.

That's why the new line will be planned so that it follows the dark background of a wood here; skirts a village there; crosses skylines in the most inconspicuous way to be found; and eventually reaches the town through its industrial suburbs.

CEGB

THE CENTRAL ELECTRICITY GENERATING BOARD

Planned plumbing



Saves

TIME
TROUBLE
SPACE

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